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# JUNE, 1879.

"CONSIDER THE LILIES," was the advice given a good many years ago by one whose words of love and wisdom have echoed down the ages. Consider well the Lilies and be astonished, for they are wonderfully made. Their growth seems like a perpetual miracle. We place the scaly bulb in the earth, bury it in the ground, in the hope of a resurrection by and by. We have faith to believe that it will come forth in its own good time, in new and beautiful robes. We plant in earth and darkness, and in faith and hope wait for the morning. After days and weeks, and perhaps months, of waiting, when hope almost gives place to fear, we see the delicate shoot piercing the surface of the earth, in search of light and air. As it ascends, slowly and steadily, leaf after leaf unfolds, forming a stately column more beautiful than man ever conceived. In due time this column is adorned by a floral crown, filling the air with fragrance, and charming the beholder with its matchless beauty, and then we know that "Solomon in all his glory was not arrayed like one of these," for earth, air, and sunshine, are moulded into forms of loveliness and the dew-drops crystalized into gems of beauty.

Many, we fear, who admire the beautiful flowers do not fully enjoy the feast prepared for them, because they do not consider—do not give any thought to the wonderful way in which plants grow. The botanist loves the most sim-

ple plant, because it is so curiously and wonderfully made. He knows its name and nature, and classification, and sees as much to admire in the little clover, or any other simple plant, as in the monarch of the forest, and allows nothing to be called a weed.

We have endeavored to increase the love for nature, by teaching in a plain way the philosophy of vegetation, and are glad to know that in many schools and villages little botanical associations are formed for the study of our native plants, and that some good work has already been done. We shall at all times be ready to publish brief reports of the doings of these associations, as far as our space will admit, and would be only too glad to join some of the excursions into the woods and fields, for recreation and study. In response to a communication received from a committe of a botanical club, who are anxious to receive information about water plants, in our next we will describe and illustrate some of the most deserving. In ten or twenty years, when the young people who are spending their leisure time in studying the laws of nature, instead of riding and carousing, and hunting and dressing, and frollicking, grow up to be men and women and take their places in the busy world. we want to be here publishing a Floral Magazine, and what a work we will be able to make, and what a host of appreciative readers we shall have!

#### FLORIDA.

Florida has been called the American Italy. It lies in the latitude of the desert of Sahara and northern Hindostan, yet its heat is not oppressive, being tempered by the waters of the Gulf of Mexico and the Gulf Stream. Over its level breadth of nearly one hundred miles, blow the mild ocean breezes which make this territory the haven of the invalid, fleeing for health and life from the rigors of a northern climate. Here many see, for the first time, with wonder, tropical, or semi-tropical vegetation, the Palmetto, the Palm, the Orange, the Mangrove, the Spanish Moss, and its glorious sunsets. How strange it seems, to be transported in a few days from our northern January zeroweather to a climate where the thermometer reaches eighty almost every day, and seldom goes below seventy; to pass from the cold, sterile landscape and leafless trees to the strange scenery and grand foliage of a tropical climate. A correspondent of Scribner's Magazine thus speaks of the country, "Imagine yourself transferred from the trying climate of the north or northwest into the gentle atmosphere of the Floridian peninsula, and seated just at sunset in an arm chair, on some of the verandas which overlook the pretty square in Jacksonville. Your face is fanned by the warm December breeze, and the chippering of the birds mingles with the music which the negro band is playing in yonder portico. Here beauty peeps from every door-yard. Mere existence is a pleasure; exertion is a bore. Through orange-trees, and grand oaks thickly bordering the broad avenues, gleams the wide current of the St. John's river.

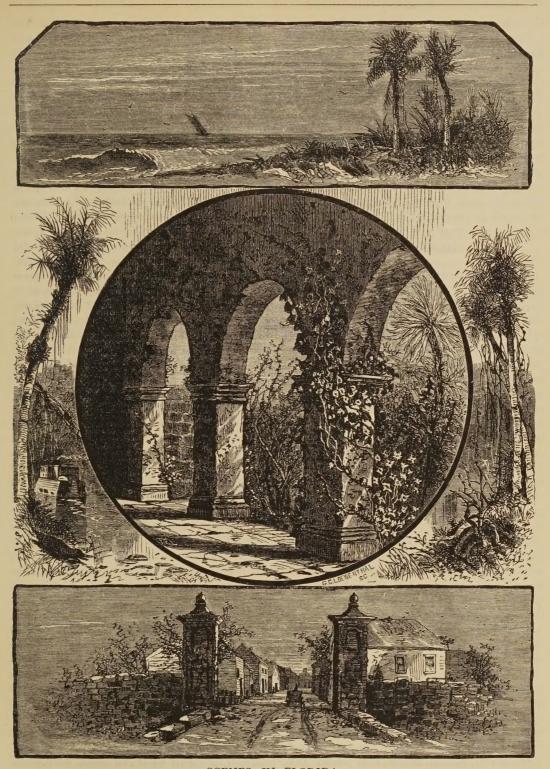
"The banks of the rivers are low and flat, but bordered with a wealth of exquisite foliage to be seen nowhere else upon this continent. One passes for hundreds of miles through a grand forest of Cypresses robed in moss and Mistletoe; of Palms towering gracefully far above the surrounding trees; of Palmettos whose rich trunks gleam in the sun; of swamp, white and black Ash, of Magnolia, of Water-Oak, of Poplar, and of Plane-Tree; and, where hummocks rise a few feet above the water-level, the sweet Bay, the Olive, the Cotton-Tree, the Juniper, the Red Cedar, the sweet Gum, the Live-Oak, shoot up their splendid stems; while among the shrubbery and inferior growths, one may note the Azalea, the Sumach, the Sensitive-Plant, the Agave, the Poppy, the Mallow and the Nettle. The vines run not in these thickets, but over them. The Fox-Grape clambers along the branches, and the Woodbine and Bignonia escalade the haughtiest forest monarchs. When the steamer nears the shore, one can see, far through the tangled thickets, the gleaming water out of which rise thousands of 'Cypress knees,' looking exactly like so many champagne bottles set into the current to cool. The heron and the crane saucily watch the shadow which the approaching boat throws near their 'retreat.'

One of our own correspondents, at Osceola, Fla., writes: "After an absence of half a lifetime, I am once more in Florida. In November, 1839, I sailed up the St. John's river, in a schooner, to the wharf at Jacksonville. It was a miserable, raw, blustering day, cruelly belying all the promises of 'balmy airs' that the 'Sunny South' had held out. Very much such a day was the 10th of November, 1878, when I returned. But only the dismal weather and the glorious river were the same. The miserable, straggling, rowdy village had becomea handsome, well-ordered city of ten or twelve thousand inhabitants; with a business street composed of numerous blocks of handsome stores; with several excellent and well-appointed hotels, and with handsome churches for all the leading denominations.

"The streets of Jacksonville are shaded by great Water-Oaks, forming magnificent avenues and rendered still more venerable in appearance by their gray beards and flowing locks of the long moss. The Orange trees were loaded with fruit—' golden lamps in a green shade' but it was not yet ripe, though eatable. The Florida oranges are large, smooth, solid, juicy and the best of them very sweet when fully ripe; but in general the rind lacks the fine color and the fragrance that add so much to the qualities of the Havana orange. I saw a curious thing in my host's garden—the whole crop of a tree standing near the house had been devoured by rats! The robbers had been seen jumping into the tree from the roof of the bay window. several oranges were hanging with the inside partly eaten out, and one had been tunneled by an engineer, who went in at one side and out at the other, or by two who entered from opposite sides. One single fruit had escaped, by growing at the end of a long, slender twig, out of the reach of the frugiverous rodents. Besides the beautiful fruit there were also beautiful flowers—a few late ones—charming tonorthern eyes at such a season; Roses, Oleanders, Lantanas, and other familiar garden favorites, and a curious white Lily, of a sort of umbelliferous growth."

FLORENCE M. HULETT, of St. Augustine,

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SCENES IN FLORIDA. ON THE COAST-OLD ARCHES-OLD ENTRANCE GATE TO ST. AUGUSTINE.

writes us, April 16th, "A year ago I sowed Ammobium seed, and I want to tell you what a wonderful growth the plants have made this spring. Several weeks ago one reached the height of four feet and three inches. The central stalk sends out from its sides twenty-four smaller flower-stalks, and these in turn send out | Phlox, Petunia, Verbena, Violet, Dianthus and

others. The whole bed of Ammobium is covered with fine everlasting flowers, and new ones are opening every day. This plant has surpassed my expectations. The Lily bulbs that I planted last fall are growing, and are eight inches in height. For four weeks my beds of Geranium have been bright with flowers. I have not succeeded with the Pansy or Aster. But I have had very little experience with flower culture, and so watch anxiously for crumbs of information; on the whole I am well pleased with my success."

Few of us can visit the sunny south in the winter season, but we can all enjoy the pictures, especially with such inclement weather as is now common all over the north; but our good time is coming, and soon we shall have green fields and beautiful flowers, and fragrant breezes, which our good friends, whom we now almost envy, will be coming north to enjoy.

# BEGONIAS.

Few house-plants are more interesting or more admired than the beautiful Begonias that grace our windows and conservatories. The cultivation of them is rapidly extending and hybrid varieties are being produced which combine the most valuable qualities. Within a short time a rapid advance has been made in improving the tuberous Begonias, and we have much to expect from these plants for bedding purposes. Most kinds of Begonias have onesided leaves, or leaves that are larger on one side of the mid-rid than on the other, but this does not at all detract from their beauty, for their outlines are so graceful, the diversity is far more pleasing than mathematical symmetrytheir distinctive individuality is charming. The greatest variety exists in the sizes, the forms and the surfaces of the leaves. The leaves of Begonia Rex and other kinds of the same style have their surfaces thickly beset with hairs, while those of many other species are thick, smooth and shining. Not alone, however, in the leaves do these plants present peculiar features, but also in their flowers, which are well worthy attentive examination. The flowers are of two kinds, staminate and pistillate in each cluster.

The Begonias are natives of the tropical countries of Asia, Africa and America, and most of them inhabit the mountainous regions, at a considerable elevation; they were first brought to notice and introduced into cultivation some two hundred years ago by a French naval officer, Michel Begon, from whom, also, they were named. The fibrous-rooted kinds are freely propagated by their leaves; a leaf of Begonia laid upon moist soil and securely fastened there by means of small pegs, and having a number of cuts made across its principal veins, will throw down roots and form buds at each wound, and as many young plants will thus be formed. Scarcely excepting the Pelar-

gonium in its almost innumerable varieties, the Begonia is at this time the most popular and most generally employed of all flowering plants for the hot-house, the greenhouse, the conservatory, and the window-garden. The amount of flowers that some kinds will produce is almost wonderful, and the length of time they remain in bloom is no less so. Some kinds bloom most profusely in summer and some in winter, so that by a proper selection of varieties their bright flowers may be had in nearly every month of the year. In potting them a good soil would be turfy loam, leaf-mold, sand, and old, well-rotted manure in equal parts. When growing they require a liberal supply of water, and it is best that this be given directly to the soil and not poured over the plants. A temperature of 60° to 70°, with a moist atmosphere, is best suited to them. But little skill is required for the management of these plants, and we could refer to scores of cases where they have bloomed all through the winter months in sitting-room windows.

The varieties shown in our colored plate are some of the most free flowering kinds. B. fuchsioides, shown by the drooping, scarlet flowers, is one of the most desirable of the whole class; the leaves are small, and of a dark green color, and the small, delicate, brilliant flowers are produced in great profusion. As a winterblooming sort for the conservatory or window culture it is indispensable. B. hybrida multiflora, represented by the cluster of rose-colored buds at the upper right-hand corner, is another most valuable winter-flowering kind. In the color of its flowers it presents an agreeable contrast to the one previously described, but, like it, it is remarkably vigorous and even more profusely blooming. B. Richardsonii, a variety with white flowers and deeply-cleft, palmate leaves, is shown at the center of the plate; it is a beautiful sort, requiring a little more heat for its successful culture than the first two. B. subpeltata nigricans has large, dark purple leaves, and bears loose clusters of large, rosy flowers. It is one of the most ornamental kinds, both on account of its leaves of remarkable color and for its large, handsome flowers. B. grandiflora rosea, with light-pink flowers; B. Sandersonii, having scarlet flowers; B. Weltoniensis, of dwarf habit and small, dark-green leaves and rich pink flowers, are all fine winterblooming kinds. B. argyrostigma picta, having very long, thick leaves, with white spots, is very beautiful, and one of the best of house plants.

Our friends can hardly go amiss in selecting any of these plants for pets, and the more they make their acquaintance the greater will be their admiration of them.

# HYBRID PERPETUAL ROSES.

A more perplexing misnomer could not occur than that of perpetual as applied to the class of Roses it designates. Young beginners in horticulture are frequently led astray by this term, and not seldom experience disappointment in the result of their purchases when they have tested their Mme. Boll, Marquise de Castellane, or Mdlle. Eugenie Verdier. We mention these variêties not indeed because they are singular, or stand alone, but because, fine as they are in some other respects, they represent a large number of the so-called hybrid perpetuals that are sadly deficient in amount and fragrance of bloom. The number of varieties of hybrid perpetuals is very great, in some European collections running up into thousands, and every year new ones are produced and sent out. Looking back over a quarter of a century we can readily perceive that we have many varieties of Roses now that are superior to the best that were known at the commencement of that period. The improvement, though slow, has been real, and numerous as the kinds now are, we cannot afford to say there are enough. Enough there certainly are, if we consider only number, but as long as with the multiplication of varieties there is an essential improvement in important qualities, however slight the modification may be, we must go on testing this one and that one as they appear, and recognizing their merits. What is most needed is some standard or system by which the merits of the different varieties can be ascertained and decided upon, at least approximately. The careful buyer wants the best, the cream of the whole collection. What way can he obtain this besides reading the statements given in descriptive catalogues? At present there is none. Different soils and localities often affect variously the same sort, so that these circumstances enter as elements into our calculations of value. Notwithstanding all the difficulties in the case, patient and intelligent investigation will reveal the prominent traits and comparative worth of the several varieties.

In a paper read before the Western New York Horticultural Society, in January last, by Henry B. Ellwanger, he stated his method of judging the quality of Roses. He says:

"A perfect Rose, for general cultivation, should excel in the following particulars, and in the order named:

"First. Beauty of color—as that which first attracts us to a Rose.

"Second. Beauty of form — without which our eye cannot rest long, but wanders on, seeking a combination of the two in one flower. "Third. Fragrance. Deprived of this no Rose can be perfect. Whoever yet saw a beautiful Rose without wishing to inhale its odors? Gratification in this matter is oftimes far more pleasing to us than the mere sight of beauty.

"Fourth. Profusion and continuity of bloom. We like our good things in abundance, poured out to us with generosity, that we may have to distribute and carry our pleasure to our friends."

"Fifth. Vigor and healthfulness of growth. These are qualities of strong plants that will thrive with a moderate degree of care and attention, and that will endure the extremes of summer's heat and winter's cold.

"Let us consider at some greater length these several qualities essential to a perfect Rose.

"First. As regards color, we like something decided and pronounced, or else of great delicacy and softness, and, withal, as durable as possible. The varieties differ very greatly in this respect. For example, Pius the IX, a well-known old Rose of splendid habit, very seldom is seen of a clear color; the sun fades it almost immediately after the flowers expand, and a shade of rose is produced, anything but pleasing. La Reine, Giant of Battles, and others are likewise affected, though in less degree. Some, like Abel Grand and General Jacqueminot, are quite permanent, lasting oftimes till the petals wilt and fall. Above all things, therefore, we want our colors pure and steadfast.

"Form. In form the Rose shows almost as much diversity as in color. We have globular, cup-shaped, imbricated, and quartered Roses, besides many modifications of these forms. The globular Rose, as shown in Alfred Colomb, is the finest of them all, but the others are very pleasing in their variety, and we should not wish to be confined to the one type. The quartered or flat form is the most objectionable, though there are very many lovely Roses of quartered, or flat shape, such as Caroline de Sansal, Baronne Prevost, etc., which are large, full, and even symmetrical.

"Fragrance. Did one ever think what we should lose were we deprived of their sweet odors? Why, there would at once be a vacant throne, with no Rose to hold a queenly scepter, and the strife of Dahlia, Camellia, Lily, Gladiolus and Rhododendron for supremacy would have no check, no limitation. Among all the delightful perfumes exhaled by the Lily, Heliotrope, Daphne, Jasminum, etc., none is so delicate and sweet-scented as the odors of La France and Louis Van Houtte; they are alike supreme in beauty and fragrance.

"Profusion and continuity of bloom.

"There is no doubt we have altogether too many kinds of so-called hybrid perpetuals, which, though excelling in many other qualities, are lamentably deficient in this; they are perpetual in name only, and do not yield a sufficient number of flowers; they, therefore, should give place to truly perpetual varieties.

"Vigor and healthfulness of growth. Last, and scarcely least, we look for a strong constitution.

"We have selected the following means of determining the comparative merits of different varieties: Taking the five qualities named in the order of their importance, we assigned the following number of points to each: color, twenty-four; form, twenty-two; fragrance, twenty; freedom of bloom, eighteen; vigor and healthfulness of growth, sixteen, making a total of 100 points for each Rose.

"Where two or more varieties resemble one another, we have only retained the superior sort as a contestant.

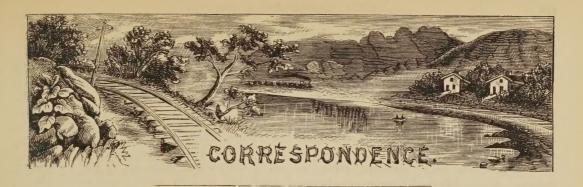
		ragrance. reedom and continuity of bloom igor and health ulness of growth otal.			
Color.	Form.	Fragrance	Freed	Vigor fulne	Total.
Maximum number of points 24	22	20	18	16	100
Alfred Colomb, crimson 24	22	19	15	13	93
Mme. Victor Verdier, crimson . 24	22	19	14	11	90
John Hopper, carmine rose 24	20	14	16	16	90
Gen. Jacqueminot, velvety crim 24	16	17	17	16	90
Countess Cecile de Chabrillant,					
pink 23	22	17	13	14	89
Abel Grand, glossy rose 23	20	15	16	15	89
Marie Bauman, carmine crimson 24	22	18	14	10	88
Charles Lefebvre, deep crimson 24	21	16	14	13	88
Francois Michelon, carmine rose 24	11	15	15	13	88
La France, silvery rose 24	22	20	18	3	87
Marguerite de St. Amande, bright rose	20	12	16	15	87
Climbing Jules Margottin, car-					- /
mine pink	19	14	14	16	87
Duke of Edinburgh, bright crim 24	17	15	15	15	86
Baronne Prevost, rose 23	14	17	16	16	86
Louis Van Houtte, maroon 24	21	20	14	6	85
Paul Neyron, rose	19	13	15	16	85
Annie de Diesback, carmine 24	16	12	14	15	81
Mme. Boll, carmine rose 24	21	12	8	15	80
Prince Camille de Rohan, dark					
crimson	18	14	12	10	78
Countess of Oxford, carmine red 24	22	4	14	13	77
Caroline de Sansal, rosy flesh 23 Mme. Alfred de Rougemont,	15	12	14	13	77
white 20	16	14	18	9	77
Peach Blossom, pink 22	16	10	12	13	73
Coquette des Blanches, white 23	10	8	18	12	71
Gen. Washington, reddish crim 20	18	4	17	8	67
Marquise de Castellane, car. red 24	19	2	9	10	64
Baroness Rothschild, silv'y pink 24	21	2	12	4	63
La Reine, rose	12	10	12	14	63
Etienne Lehet, carmine red 24	20	2	10	6	62
Mdlle Eugenie Verdier, silvery			0		-
rose	20	2	8	7	61
66 As will be seen we have	200	D.	200	war h	inh

"As will be seen, we have no Rose which may be called perfect; our choicest sorts, excelling in some qualities, fall short in others."

# SWEET CORN FOR FODDER

Whenever there is a prospect of short pasturage, or a deficiency of winter fodder, we can confidently resort to a crop of cornstalks to make good the supply. This crop is quickly raised and is cheap, not only because it can be raised by a small outlay of money and labor, but because there is an abundant yield of nutritious food. Stowell's Evergreen is the most popular variety for fodder purposes, but any of the kinds of Sweet Corn are good, and superior to any of the different varieties of Yellow or White field Corn, for the reason that they contain much more saccahrine matter. There is nothing better for milch cows than corn fodder in its green state fed out every day as it is cut; in this way pigs are also very fond of it. If well cured it is highly valued in the winter by cattle, horses and sheep, and may be freely fed to them.

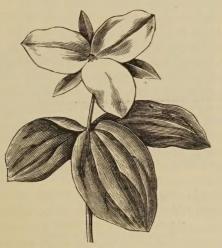
To get a good crop of Corn-fodder the soil should be rich, and well prepared by deep plowing and cultivating. Perhaps the most common method of planting is to sow the seed broadcast and drag it in, and good crops are raised in this way. Some run shallow furrows with the plow, two and a half or three feet apart and drop the grain thinly along in the furrows, and then cover by turning the soil back again lightly with the plow. The best way is to use a grain drill when this implement is convenient, and drill in the grain in rows three feet apart. A considerable larger crop can be produced in drills than in broadcast seeding, for the cultivator can be run between the rows until they are a foot high, and the stirring of the soil greatly facilitates a vigorous and healthy growth. For feeding in a green state it is best to make successive sowings at intervals of about ten days, so as to have the fodder in a succulent condition for as long a period as possible. When it is intended to cure the fodder for winter use, it is best to sow it early, in order to have the advantage of the warm weather and bright sun for curing it. Three or four bushels of Corn is a sufficient quantity to seed an acre; when drilled in three bushels is plenty. The best way to harvest a crop of Corn-fodder is by means of a good reaper, but when this cannot be employed, a short, stout scythe will make pretty quick work with it. It should be tied up in small bundles, and these set up loosely into small shocks, until they are well cured. After this the small shocks can be put together into larger ones and allowed to remain on the ground until the near approach of winter, when the crop should be stored in the barn or securely stacked.



#### WILD FLOWERS.

In clustering throngs the sweet wild-flowers have come again to brighten all nature by their radiant beauty, and to all of them we hasten to extend our glad welcome, but a few, our especial favorites, make us trebly glad.

And first there is the Smiling Wake Robin, or Painted Trillium, Trillium erythrocarpum. However much we may delight in other flowers, this fairest creature must always occupy a place in our heart, set apart to itself alone. With its three snowy-white petals, ruffled on the edge, and painted with the finest pink lines down to their base, it is, indeed, such a very vision of lovliness as must be seen to be fully appreciated and understood. The White Wake Robin, Trillium grandiflorum, is not nearly so handsome as its peerless sister just men-



TRILLIUM GRANDIFLORUM.

tioned; still, it is extremely interesting, and chiefly from the exceptional fashion it has of growing prettier with the advancing days of its bloom. Robed in clearest white in the early stage of its inflorescence, and set in a circle of rhomboidal-shaped green leaves, it is pleasing, though without striking characteristic to fascinate. After a while, and at the period when most flowers would begin to fade, this cheery little being, instead, sets to work, and in some

deftly mysterious manner, changes from a white to a beautiful, glowing rose-pink color—as charming a procedure, we venture to assert, as the most aristocratic and highly-cultivated flower, the world over, could ever undertake, and still more, succeed in accomplishing.

The Aralia tribe is numerically small; some of its members posses useful medicinal properties, but none of them, externally, are particularly attractive, save one, the Aralia trifolia, or Dwarf Ginseng, or perhaps better recognized as the Groundnut. This is a shy, wee thing, having a single, slender stalk, eight or ten inches in height, on which, about midway, is a whorl of three to five compound leaves, and above, crowned with a crowded umbel of white specks of flowers of peculiar structure. Altogether, it bears itself with singular dignity, bordering upon hauteur a trifle, but, at the same time, marked by so unmistakable an air of fine breeding as to make it perfectly irresistible. Deep in the black, moist earth, the chosen habitat of this plant, are its globular tubers, of a sharp, pungent flavor, and, no doubt, toothsome enough to many of the nibbling dwellers of the wood, to whom they may serve as food.

Some writer has said, "What a thought that was when God thought of a tree!" We should say this emphatically in relation to the stately, Flowering Dogwood, laden in the spring with myriads of dazzling flower-clusters, all fluttering, like so many airy pennons, to every breeze. The individual blossoms are inconspicuous affairs, but several of them together are surrounded by a white involucre of such generous dimensions as to nearly hide the leaf-foliage; the tree thus bursts into a glory of sheeted bloom, pure as a glistening snow-rift. It is scarcely less showy in fruit, gleaming with its bright red drupes, than in flower, and the wonder is, that this superb tree is not more valued here at the north. It flourishes abundantly south, and is there held, as we are told, in the marked estimation which it so deservedly merits. In the shade of the Dogwood is often seen the Bunchberry, with similar insignificant flowers, and

wrapped about with the same snowy involucre as its lofty relative — a delightful object, of whose winsome beauty we never tire.

That genuine lover of nature, THOREAU, has somewhere said, "I enter a swamp as a sacred place, a sanctum sanctorum," a statement that might seem slightly absurd to one unacquainted with the floral display of these low, miry localities, which, not unfrequently, is of a most astonishing character. Here, the brilliant, scarlet Cardinal-Flower and the but little less imposing large, blue Cardinal-Flower, beam out in all the gorgeousness of their vivid coloring. Here, too, is the Calla palustris, nearly related to the magnificent Ethiopian Calla Lily of universal cultivation. The marsh Calla is a thirsty thing, and so far as our experience ever goes, persists in taking up its



DROSERA ROTUNDIFOLIA.

abode in the wettest and least accessible part of every swamp that it has been our happy fortune to explore. But what will not any one of us do or dare, if a genuine love incites us to action? Under its potent influence, how fruitful we become in expedients, and how equal to all emergencies! So, endued with a sudden accession of strength, we tumble clumsy logs into position with comparative ease, over which we betake ourselves with careful footsteps, meanwhile running the gauntlet of green-eyed water snakes, toads, frogs, and every nameless creeping and crawling creature, until, finally, unaided and alone, we grasp the prize from out the depths—the beautiful Callas, and bear them off in triumph. They closely resemble the house Calla in their general aspect. The white spathe, however, is open and spreading, and the spadix is covered with a mass of sessile flowers, making a striking contrast with the long-petioled, heart-shaped glossy, dark-green leaves.

Before leaving the field of swamp research, we must briefly allude to a curious Sundew, the *Drosera rotundifolia*. The bits of blossoms are of not much account, being small, and opening only in the sunshine, the leaves constituting by

far the most noticeable feature. They are of a reddish hue, orbicular in outline, and beset with glandular hairs, which exude a viscid fluid from their tips, having the deceptive appearance of dew. The filaments, as soon as touched, begin at once slowly to incurve, bearing every hopeless insect alighting thereon to the center of the leaf, where, according to Professor DAR-WIN's theory, it is dissolved, and then absorbed, or, in other words, eaten up, by the voracious plant; and our faith in this "carniverous plant doctrine," we must confess, has been considerably shaken since reading the account, in the February number of the MAGAZINE, of the experiments with the Diona muscipula (of the same family as the Drosera), and we now await further developments in favor of the theory referred to, before adhering to it with our former implicit confidence.

Another of the "stars of earth," pre-eminently so, is the Houstonia carulea. We have always come across this tiny gem in the vicinity of grassy river-banks, but we have seen it stated that it grows by roadsides and in the fields in lavish profusion, in some sections of the country. A variety of common names have been bestowed upon it, but that of Innocence, we think, every one must admit to be the only really appropriate one, that is, if the natural language of the plant is to indicate its nomen-The delicate blue flowers of the clature. Houstonia are so modest and lowly as certainly to typify the peace of innocence in every line. Blessings upon them!

Of the hosts of our cherished wild-flower friends of the swamp, one is the Twisted-blade, or *Streptopus roseus*, which takes its name from the distorted peduncle. It is found mostly in damp woods, branches dichotomously, and then, under each leaf, what should there be but a single, rosy, swaying flower-bell, closely nestling down as if for shelter and protection. The effect is captivating, as can well be imagined, to one admiring the endlessly varied beauty of nature, which, as WHITTIER truly writes, ever

"Offers to our ears and eyes
Perpetual riddles of surprise."

—MARY TILDEN, Troy, N. Y.

THE WINTER.—The winter has been cold here, in Michigan, as everywhere, but I have seldom known one in which plants that we often consider half-hardy suffered so little. This remark, however, must be confined to plants of low growth, and these have been protected by snow, so that they have endured the rigor of a long and severe winter without injury. I am sorry I cannot say so much for Ivies and late-growing shrubs and vines.—EMORY.

#### PILOGYNE SUAVIS.

In the September number of the MAGAZINE appeared an article on the *Pilogyne suavis*, or Musk-Vine, with an illustration of a single branch and flower. Since that time I have learned something of its capabilities as a climber for balconies or verandas. The engraving given now was made from a photograph taken in November last. In the previous article it was remarked that the foliage and branches were killed back to the ground by the first frost. This was a mistake. The plants remained green until nearly the 1st of December, long after every hardy vine, except the Ivy, had lost their foliage and were bare and brown, ready for the long, long winter. The roots can al-



most be called tuberous, and can be kept dormant through the winter, the same as Dahlias -buried in sand in a cool, dry place, free from frost. On the veranda here represented were four plants, turned out of thumb-pots about the 1st of June. With a liberal supply of water every day, and a dose of manure-water once a week, they soon reached the top of the piazza, sixteen feet from the ground. In many places the vine was fully twelve inches thick, the largest leaves being nearly three inches across. you can easily imagine the wonderful growth the plant must have made. The flowers, though small, are borne in such countless numbers that the air is filled with their musky fragrance. It proved a perfect pasture to hundreds of honey bees, who came morning, noon and night to drain the sweetness from the tiny cups.—WAKELEE.

#### MY CHILDHOOD GARDEN.

As I sit here, in my American home, and the April sun shines on the carpet at my feet, I am, in fancy, carried back to my English home. The sunny hours of childhood come trooping by, and I see the garden, with its well-kept Hawthorne hedges, sprinkled with white blossoms, delicately tinted with pink; the graveled walks, the low box edge, and the beds of perennials, all in full bloom. There is the Lavender, that we used to gather and lay in our bureau drawers to scent our clothes, and yonder the Old Man, so heavy with perfume. Here are the Sweet Williams, the yellow Daffodils, the Spiderwort, with it purple blossoms, almost buried among its sheath-like leaves, and the Syringa, all clothed in beauty by the first of April, and filling the air with rich perfume. But of most precious memory is the Cowslip. Oh! how fragrant, and how, year after year, did they open their little cup-shaped blossoms, and cluster so lovingly between the low, sessile leaves that held them, as if to guard them from danger. Of all the flowers, none spoke in such eloquent tones, or touched the heart like this flower. It was the first to welcome us when led by a father's hand along the graveled walk—a beloved father, long since in heaven.

"I remember, I remember
The Roses, red and white,
The Violets and the Lily-cups—
Those flowers made of light!
The Lilacs, where the Robin built,
And where my brother set
The Laburnum on his birthday—\*
The tree is growing yet!"

I am sorry that our northern winter here is too rigorous, and our summer sun too strong, for the English Primroses of precious memory. Yet I manage to cultivate a few of these plants by having them in partially shaded and sheltered places, and, besides, I raise some every year from seed, for winter or early spring blooming in the house, and in this way I am rewarded with a profusion of their beautiful flowers.—Fancy Free.

\*My oldest brother, as did Hood's, planted a Laburnum as a memorial of his birthday, and, as I now remember, it was when he was twelve years old.

PETUNIA IN THE HOUSE.—I had a Petunia in blossom all winter, and now I wish you could see it—a dark purple center, fringed with white. The blossoms are four inches across and seventeen inches around the edge.—Mrs. H. M. C., Ludlow, Vt.

# TWELVE BEST ANNUALS.

THOSE who love flowers, allow me to say, I talk of my pets in a familiar way. These twelve I will name—not forgetting the rest— Because I do think they are some of the best.

First comes the Pansy, quite early in spring, With beautiful spots, like a butterfly's wing; Sitting down on the soil with an elegant grace, It lifts up its round cheeks to laugh in your face.

Then the Dianthus, or Pink from Japan; To describe well its beauty, just try if you can! Although a biennial, 'tis annual, too, And to leave its name out, why, that never would do.

In the Annual Stocks you surely will find Both sweetness and beauty together combined. All shades and all colors, some double, pure white-A good bed of these presents a fine sight.

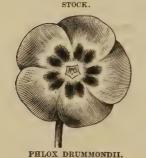
Then Drummondii Phlox. I tell you my mind, Its equal, from seed, I never could find; Such radiant beauty, at so little cost, Giving plenty of flowers from June until frost!

A good double Balsam. Who can but admire The stem full of roses, growing higher and higher? Named first Lady's Slipper by some, it is said; Now fit to adorn the crown of her head.

The single Petunia, and double ones, too, For a bed on a lawn their equals are few.













SWEET PEA.

Such large, noble flowers, from tiny, small seed, They continue all summer most brilliant indeed.

For trellis, or screen, in front of a bower, The climbing Sweet Pea is a beautiful flower, Clinging one to the other, if crowded for room; The often'r you cut them the more they will bloom.

The double Port'laca, in the blazing hot sun, As a flow'ry carpet, is second to none-Though the heat be intense, with no sign of rain, This bright salamander will never complain.

The beautiful Asters—the dwarf and the tall— For an autumn display are the best of them all; All colors and shades, very easy to raise, I know of no flower more deserving of praise.

Two more little beauties I must not forget, The pure white Alyssum and sweet Mignonette. Not showy, like some I refer to above, But both sweet little pets, that all of us love.

And, now, for the last, I have got in a fix-Just so if the number had only been six. Have patience a moment, I just think of one, I will mention its name, and then I have done.

The lovely Verbena, with clusters so grand, Well known and admired throughout the whole land! The praise due to others I leave for this time, And this beautiful flower will finish my rhyme.

L. O., Newburgh, N. Y.

VERBENA.







PORTULACA.







MIGNONETTE.

#### SOUTHERN EXPERIENCE.

JAMES VICK:-Like "Burnam coming to meet Dunsinane" have the children rushed in this evening with bushes of Shrub Honeysuckle, or, as some call it, Wild Azalea, and yellow Jasmine, which, by the way, reminds me of a question asked by one of your correspondents, "Why are they such shy bloomers?" With us it has been an old saying, "Transplant them when in bloom if you would have them bloom for you," and it seldom fails, provided a like soil and site are given from whence they came. I see, also, another contributor, from Florida, desires the experience of one who has tried bulbs in the south. For a number of years I have cultivated them in varieties, and find all of the general favorites succeed well here year after year, except Tulips, Crocuses, Ixias and Scillas; these, however, do their duty for a couple of years, with ordinary culture, but then, you know, 'tis well to patronize florists for some things, else their business would flag. I think, however, if we adopted the northern plan of housing Tulips, they would do better; but, with us, when we plant bulbs, tubers, etc., we let them remain until compelled to divide them. With some, I have seen very fine Hyacinths in borders, that have grown over a foot in width by a multiplicity of bulbs—my plan is to divide at least once in four years. Tigridias and Tuberoses both require division once in three or four years, and both flourish well in the sun. Japan Lilies do well if grown in partial shade -mine get very little sun after II o'clock. I have them planted on the highest side of a bed that fronts east, consequently the soil is never packed around them. And just here let me insert a word in behalf of the "Excelsior Hand-Weeder." It is the desideratum for bulb culture, loosening the earth around them when nothing else can perform the work without Lilium rubrum, with me, surpassed everything in the bulb line, not even excepting L. auratum, which stood the entire summer's sun, and was only killed by frost in autumn. I grow Amaryllis well, even the delicate sorts, if potted and placed on the south gallery, on a plant-stand, with no other protection than a bunch of moss, to cover them. They bloom finely, if planted early in February. Pancratium grows wild here, and blooms without care, requiring a moist, shady nook. Crimson Amaryllis requires protection, but Tritomas do not.

Now, I must tell you of three Malaga Grapevines. I planted seed from Grapes we ate in December, 1877, and kept housed in pit all winter; set them out in spring of 1878. They are still living, having survived the severity of

the past winter, which killed very many large evergreens here. Do you think I can do anything with them? I cut them back last fall, and they are now putting out new canes.

I cannot refrain telling you how delighted my little five-year-old boy was, the other day, when I planted some Candytuft seed in his little garden, for he was "going to raise Candy in his own beds." Same day he was dilatory in coming to recite his baby lessons, and at my call, replied, "Oh! mamma, my little mouth is so tired now; I want to rest some." Had he the opportunity, I think he would be a second Mr. Vick in floriculture, so great is his love of flowers.

Can you not give us a colored plate in one of your MAGAZINES of the Arbutus? From child-hood the poetry of this flower has been implanted in my imagination, yet I do not remember ever having seen one.

I purchased a white Geranium, last summer, Mrs. James Vick, which is the life of my collection, each truss looks like a fine Camellia, and does not require half the care; you may well say "it is the finest white for winter-blooming."

I forgot to mention a golden Lily I now have in bloom. I got it under the name of Lemon Lily, as the fragrance is similar, as well as the color. It is a profuse bloomer, with stalks three feet high. Can this be *L. croceum?* The roots are fibrous, similar to Iris.—MRS. C. P. B., *Belvidere, Miss.* 

We shall be pleased to learn the result of the out-door culture of the Malaga Grape by our correspondent. The yellow Lily, we think, is the *Hemerocallis flava*. Perhaps we may at some future time give a colored plate of the Trailing Arbutus, but we have hundreds of good things we are thinking of giving, and, among others, the Rubrum Lily of which our correspondent speaks.

#### HOUSE AND GARDEN PLANTS.

Mr. VICK:—I wrote to you some time ago, telling you of my beautiful English Ivy; and now I wish to doubly express my love for it, since, spite of all my care, so many of my plants were frozen during our severe winter, while the Ivy stood uninjured, and is growing prettier every day. Although the cold weather took many of my choicest plants, I am thankful to say that I am not easily discouraged, and have no intention whatever of giving them up in winter. We seldom have so severe a winter as the last one, and besides that, what were kindly left me are growing nicely. So why be discouraged?

What pleasure is derived from the little Oxalis floribunda! I have had one for several years, and do not remember when it has been without some bloom and a greater part of the time completely covering the basket with its pretty pink blossoms. Then its habit of "going to sleep" at night makes it seem so life-like. I have a Honeysuckle, *Halleana*, that bloomed last season for the first time. I wish to have it moved to one of the porches, either east or north of the house, and would like you to tell me which place would suit it best, and if it will bear being moved in the spring? Also, please tell me whether Dahlias succeed best in a partially shaded situation, or where they will get the full benefit of the sun.—Mrs. L. S. W., *Minerva*, *Ohio*.

The east side of the house would be preferable to the north side for the Honeysuckle. It may be moved without fear, either in spring or fall. Dahlias thrive best with a full exposure to the sun.

#### TROUBLE WITH ASTERS.

For the last six months I have been thinking of dropping you a line concerning an unwelcome and new feature in the growth of the Aster. Soon after my Asters commenced flowering last season I noticed that the pink ones were dying, in fact, in a few hour's time the entire stock, buds and blossoms, would be completely wilted. I pulled up several, thinking perhaps I might find a "pesky" cut-worm at the bottom. I found none, but did find some small mud worms; but further investigation, from time to time, fully convinced me that they were not the guilty party. A friend and myself made several examinations, but failed to discover the cause. Later I found that the stock, just above the ground was in a decayed state; a soft external rot was visible, and on breaking open the stock it had the appearance of a diseased squash vine.

What puzzled me was this, why should the pink Asters be more affected than those of any other color? There were but very few stocks of any other colors that were diseased at all, and those only very late in the season. I cultivate this few in a hot bed, and let them remain through the season; I believe this to be the most successful method. I pride myself in having the finest Asters of any one in town; I had an excellent show last season, notwithstanding the "rot." We have a Farmers' and Mechanics' Association, and I am happy to say that the ladies are more or less interested in the club.—Miss M. N., *Plaistow*, N. H.

This affection of the Asters is something unknown to us, but we surmise it may someway be in connection with the hot bed where they are grown. To test the correctness of this supposition, some could be grown as they usually are by our correspondent, and others of the same kind, after once or twice shifting, could be transplanted into a nice fresh border.

#### THE ANTIRRHINUM.

Your correspondents write about their small flowers and their large flowers, each one having favorites, which I am glad to see, for these favorites are sure to receive good care, though I have known the matter to be overdone and plants killed with kindness. I have a favorite—I don't say that I like it better than any other flower, but I like it, and grow it. I do not remember when I commenced to appreciate this flower, for it seems to have grown up with me, and I cannot remember a time when this



ANTIRRHINUM. FLOWER SPIKE.

flower did not adorn my father's garden or my own: for the very first year I had a garden a kind father, ever anticipating my wishes, with his own hands carried from his own grounds a few plants and set them in my little garden. The kind father is no more, but the Snapdragons still bloom, and tell me of one I loved even better than the flowers.

The Antirrhinum is perfectly hardy in Ohio, and if seeds are sown in spring flowers will be plenty in the latter part of summer, and the plants will live over the winter and flower again the next season. If the seed is sown as late as July they will germinate and form good

plants in the autumn, and perhaps giving a few flowers, but the next summer they will be at their best and flower very early. During hot weather it is well to furnish water and shade

till the young plants are well up.



ANTIRRHINUM. PLANT.

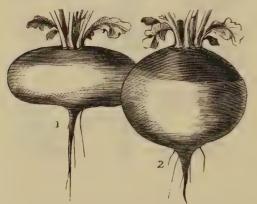
The first summer it is best to check the flowering by removing a portion of the flower branches as soon as they begin to form buds, for this plant is disposed to bloom so freely that it often becomes so weakened as to be hardly able to bear the rigors of winter.

For the center of a large bouquet I know of nothing better than a good truss of Antirrhinum.

—M. E. L.

# TURNIP CULTURE.

I was much interested in the remarks of your correspondent on Turnip Culture, in the May number of the MAGAZINE, and having been engaged in growing this vegetable, both for the table and for stock, during a long life, both in this country and in Europe, I can endorse all that was said of its value, as well as the mode of culture and its adaptation to this country and

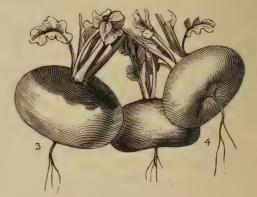


I. EARLY FLAT DUTCH. 2. WHITE NORFOLK.

climate. I have never seen such crops in any other country as I have seen here on new and rather moist land. A piece of wet land with the wood-just cleared off and partially drained will give a sure and monstrous crop of Turnips, as I have often found, and it seems to me that the black, rich soils of the West cannot be excelled for Turnip growing. My main object, however, is to speak of some old and favorite sorts.

For an early Turnip I like the Early Flat Dutch as well as any kind, while for a large

crop of large white Turnips, not very fine-grained to be sure, the White Norfolk is the kind that will give it almost surely. The Long French is a very fine-grained, long sweet Turnip, and excellent for the table. I would only recommend it for the garden. There are two very



3. YELLOW ABERDEEN. 4. YELLOW MALTA.

excellent yellow kinds not mentioned by your correspondent, the Yellow Aberdeen, a good old Scotch sort and one of the best for a field crop, and the Yellow Malta, both of which sorts I have always grown with the greatest satisfaction and profit.

It may not be unprofitable to some of your readers to be told that the best manures for the Turnip are those that contain the most phos-

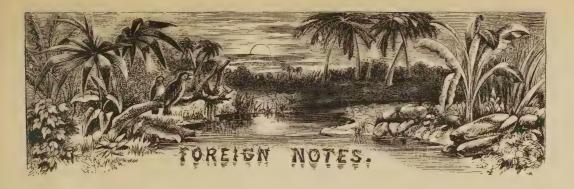
phates, phosphate of lime, or bones, and if they are broken very fine the better, and better still if dissolved in some The effects of phoswav. phatic manures on the Turnip crop is somewhat astonishing to those who are unacquainted with their operation. As the United States are now furnishing a good portion of the world with meat, the Turnip deserves particular attention, for there is nothing so good to suppliment our invaluable Indian corn, and having both we can make meat cheaper and better than any other people. A portion of Turnips in the winter season for all cattle is a treat which they not only enjoy, but I am sure from long experience is conducive to health. I have made several pretty thorough



7. LONG FRENCH.

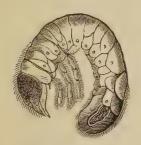
experiments which prove this fact, but with which I will not trouble your readers.—E. M.

We have curtailed the descriptions of varieties furnished by our correspondent, and added illustrations. The Long French is by some called Jersey Navet.



#### THE MAY BUG.

For several years the May Bug, or the large white grub which produces it, has increased rapidly and become exceedingly destructive, especially to plantations of Strawberries, devouring the roots of the plants. A similar state of things seems to exist in France. At a sitting of the Central Horticultural Society of Paris, it was stated by the head gardener at Chantilly that they were destroying his Roses. One hundred and eighty-seven days' labor were expended upon about an acre of ground, each man disabling 5000 of these insiduous grubs daily; the total amounting to close upon a million. Another member stated that he had upwards of half a million collected on every hectare of his estate. It was stated that the most effectual and cheapest mode of procedure was to wage war on the May-bug itself. This,





one of those present, conducted in the following manner. He procured worn-out milk-cans of about two gallons capacity, and employed school children in the early morning to shake them from the trees, and collect them in those cans, which they quickly filled. Boiling water was poured on them to kill them. Since this method had been practised, the owner had been troubled with very few grubs.

Every one must know the May-bug, a large brownish beetle seen flying about our gardens, and sometimes entering our houses during the evenings of the latter part of May or early in June. This beetle hides itself in trees and shrubs during the daytime, generally clinging to the under sides of the leaves, which it feeds upon, but, as it lives only about a week, does little mischief unless they are very numerous. After about a week of active life the female digs into the ground several feet and deposits her eggs, probably a hundred, after which she ascends to the surface and soon dies. The eggs are hatched in mid-summer, but the larvæ are so small and inactive that they do little harm, the whole group keeping together. The second summer they come to the surface and commence the work of destruction, feeding on the tender roots of any plants they can obtain, working all summer, until cold weather compels them to descend again into winter quarters. The next spring they commence feeding heartily, and continue until the middle of the summer, when they descend to the depth of five feet, make an oval cell and assume a chrysalis state, and the next spring come forth a perfect May-bug. Some entomologists claim that this beetle remains in the larvæ state one year longer, which may be true.

The best remedy is to kill every beetle and grub that can be found. When numerous, shaking the trees will bring down a good many that can be destroyed. Sulphur and salt have both been recommended. The English gardeners sometimes plant Lettuce, of which they are very fond, as traps.

#### THE PRIMROSE FAMILY.

The English journals, lately, have almost made us envious, for they abound in descriptions of the early wild flowers, the Primroses and Cowslips, that abound in the fields and copses during the long, slow English spring, for there summer heat does not so suddenly succeed winter as here. More than once have we gathered these sweet wild flowers from English copses, listening the while to the song of the sky-lark. But then, they have no Trailing Arbutus, nor Hepatica, nor robin, nor blue-bird, so we are content. A correspondent of *The Garden* thus writes of these flowers and their blessed influence:

"Of all hardy spring flowers, can any surpass in beauty or variety of hue these early

From the wild Primrose by the river's brink to the last-discovered foreign-bred member of this widespread family, all are lovely. Whether these pale, delicate blossoms nestle in Moss, on sunny banks, or light the dark recesses of deepest dell in copse or covert, contrasting with Wild Hyacinth, Wood Anemone, and Dog Violet, how beautiful they are. Later, too, when the fields are dotted with yellow Cowslip, how gay the children intent on gathering the golden treasure—wealth so easily acquired, the pursuit of which brings color to the cheek and pleasure to the heart. Oxlip, and Polyanthus, with their grander relatives Cyclamen and Auricula, all belong to my friends the Primrose family. There is a story told, how, long ago, hard workers, gold seekers, afar in the Antipodes, walked many weary miles to see a little Primrose in flower that some home-loving emigrant had carried across the ocean to that distant land from the mother country, and how stern eyes were dimmed by tears as recollections of home and childhood awakened in the hearts of careworn, toilworn men. I do not know how the story (a true one) ended; perhaps kind deeds of love and penitence, and half-forgotten prayers sprang from those softened moods; but surely the little flower had fulfilled its mission of love, and deserved the pretty name by which the Germans know it. Himmels Schlusschen (Heaven's Key)."

# NEW METHOD OF STRIKING CUTTINGS.

A short notice has appeared in a St. Petersburg journal of my paper on the absorption of water by the green parts of plants; and it appears to have suggested to Mr. G. WEIDENBERG a method of striking cuttings. After inferring that the frequent fading of cuttings before they have struck root may be accounted for by a too great transpiration, he proposes making the cuttings longer than usual, and burying some of the leaves as well as the stalk, so that about a third remain above out of the earth. Those leaves in the ground may thus undertake the function of absorbing moisture, and so help to balance the loss of water from the exposed leaves. The ground, he adds, in which cuttings stand should be, if possible, porous, in order that the air may have access, and that the rotting of the leaves may be prevented. This process enables the cutting to make roots before the leaves decay. Weidenberg appears to have found that Roses of all sorts, Pinks, and other cuttings of plants thus make very good roots, which are usually hard to grow. In my paper I only alluded to cut flowers having leaves attached to the stalk and plunged into water, but the principle is the same as for striking cuttings, and it is so easy to try that gardeners can readily put it to the test and see if their results will accord with Weidenberg's experience.—Geo. Henslow in Gardeners' Chronicle.

### HORTICULTURAL SHOW IN ENGLAND.

The English papers are discussing the holding of a World's Horticultural Show in England in 1880, and the New York journals are recommending a great World's Fair in New York in 1890, the centennial of the adoption of the Constitution, or something of the kind. It seems to us we have had enough of the centennial business. We asked all the world to unite with us in celebrating the anniversary of our national independence, and that was well enough, though we suppose the Japanese, and Chinese, and Austrian and Russian governments didn't care much about it. To ask the whole world to come again and celebrate with us the adoption of a constitution a hundred years ago, or any other local event in which foreign nations have no interest, is a little too "cheeky." If we want a World's Fair, let us have it on its own merits, and not on any false pretenses.

#### FRAUD IN HONEY.

The English and Scotch papers are complaining of frauds in American honey sent to Europe. What purports to be honey is put up in nice glass jars, with pieces of honey-comb floating about. On examination, what should be honey is syrup or glucose, and many retail merchants have been arrested under the adulteration act, and fined for selling it. The rogues on this side deserve the worst punishment, and every lover of honest dealing should aid in their detection.

OLD MELON-SEED.—The foreign journals are talking about experiments with melon seed thirty and forty years old. The vines made a very small growth, and flowers were produced almost as soon as the plants were out of the ground, but the crop of fruit was very fair.

Growing Vegetables in London.—The Journal of Agriculture says it is almost impossible to grow vegetables in the back yards of London, on account of the want of air. The Scarlet Runner does the best.

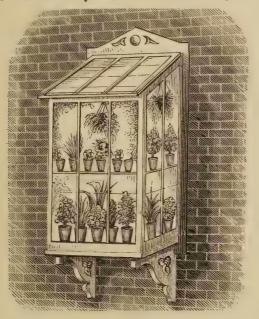
Bahama Islands find it more profitable to grow early vegetables, such as Tomatoes, Peas and Potatoes, for the American market, than Pine Apples and Oranges.



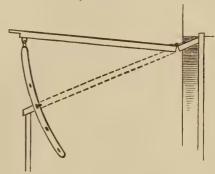
#### WINDOW CONSERVATORIES.

MR. JAMES VICK:-I am anxious to have a greenhouse, or bay window on the south side of our sittingroom, where there is a bright, sunny window. I have thought that the window could be made into a glass door which would keep the dust out of the apartment where the flowers were, and yet give us a good view of them all the time. I want something that will show nicely from the road, as that is the prettiest side of the house. I am not satisfied to have the flowers in the room where there is dust, and they have to be carried to the kitchen to be watered over the leaves, and it is too much labor. Could you help me in giving a drawing that would suit? I do not care to keep more than one or two hundred plants, indeed, less might suit me better, as flowers require so much attention. I also want to get up some vases that would only cost a little labor and a trip to the woods, in which our country abounds. Could you give us something rustic? - MRS. R. P., Cross Roads, Md.

On several accounts it is better to have the space occupied by plants separate from any other room—the temperature, humidity and purity of the air may all be more easily con-

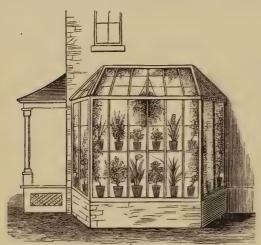


trolled and regulated. If it is not convenient or desirable to have an ample conservatory, and one is not entirely satisfied with the room and window culture, a miniature conservatory can be formed at a window, that will give entire satisfaction if properly managed. The accompanying illustration shows three sash to form the sides and front, and another for the roof, which, together with a board at the bottom, setting upon brackets, complete a small frame or window conservatory. The sash can be made



to be put up with screws, so that the whole structure will be firm, and yet can be easily removed if desired. The roof-sash should be hung with hinges at its upper edge, in order that it can be raised at pleasure for ventilation. A small iron bar with a number of holes in it is fastened by a staple through one end at the middle of the lower bar of the roof-sash; when the roof-sash is raised, it is fastened by an iron pin in the upper part of the front sash, which passes through one of the holes in the iron bar, and when it is shut it is fastened in the same way. This is readily understood by showing a section of the ventilator as it would appear when open and fastened. In this manner the roof-sash, or ventilator, can be raised much or little and be securely kept in its place. A pair of sash, one hanging to each side of the window-frame, so as to swing into the room, completes the enclosure. A strip of wood three or four inches wide, running along the bottomboard next to the room, will prevent any dirt from falling into the room. If the bottom be lined with zinc turned up three or four inches at the sides and ends, so as to form a tray or tank, it will prove a security against water. Sprinkling and syringing can then be done with more freedom than if there was a possibility of its running into the room. A hole in the bottom of the tray, to which is attached a small pipe about a half inch in diameter, and running to the ground, will afford an escape for water without further attention or care. In the northern part of the country, where the cold is very severe, it will be a great advantage to double-glaze the windows; this is a precaution which we would particularly advise to be taken. In making the sash, it will be necessary to rabbet the styles, bars and mullions on both sides instead of one—this will be the only difference; two sets of glass can then be put in.

Inside, each sash must be provided with a shade that can be raised and lowered, accordingly as may be required to properly regulate the light. Having arranged the shelving, plant-



brackets and hooks, and hung a good thermometer where it can be seen at a glance, the furniture may be considered complete. An inch of clean sand spread over the bottom will make a suitable bed whereon to set the pots; if the sand is two or three inches in depth and the pots partly plunged in it, it will be all the better. A few days' experience in the management of the window-conservatory will enable one to judge correctly of the best means to secure the proper temperature, and to regulate it in the best manner; of course, in the absence of the sun, the supply of heat is from the room to which it is attached. By properly adjusting the opening of the doors, much or little heat can be admitted, and the thermometer will always indicate the exact state of the temperature within. A small enclosed space, such as has now been described, is subject to greater and quicker fluctuations of heat and cold than a large volume of air. On this account, without mentioning others, we would advise something larger when it can conveniently be made. The structure most suitable for our correspondent would be something like the larger illustration, having a base or foundation of stone-work.

The window, off which this conservatory may be built, should be cut down to the floor, and the space fitted with one or two glass doors. What would look better, but cost more, would be to enlarge the opening the full size of the glass structure, and have a glazed sash, with doors, to fill the entire space; in this case all the plants would be in sight from the room, which would not be the case if the opening were left of its original width—the width of the window removed. As an extra means of protection in the severest weather, wooden shutters or blinds for the outside can be provided; when not in use these should stand away in a dry, convenient place, ready for immediate service when needed.

If a window conservatory, such as the one we are now considering, should be situated off a room only partially heated, or one which at times is subject to be left unheated, then there must be some means for supplying a constant and steady heat. For this purpose we know of nothing more simple and effective than a coaloil stove. The improvements that have been made in the construction of coal-oil stoves render them reliable and economical heaters. The best stoves have what are called heaters attached, and the radiation may be direct from these, or, if one chooses to have a small set of pipes and water tank, he can adopt the hotwater system on a small scale.

As to rustic vases, any amount of ingenuity may be exercised in their construction. With tools, material, and time at one's command, there is no difficulty in making a great variety



in size, shape and style. We offer an illustration of one to give some general ideas of forming such vases. Of course, in the design of each vase, one should consider the particular place or purpose that it is intended for. The branches of wild grape vines and small-sized

wood of many kinds of trees can be used, and the roots of the Mountain Laurel, Kalmia latifolia, when they are to be had, are very serviceable. It is best to remove the bark, as the vase will last longer than if the bark is retained. When the bark is left on, the moisture collects and stands between the bark and the wood, and then decay quickly commences. Brads are the best to nail with, and can easily be put in with the aid of an awl. A coat of coach varnish, which will stand the water, makes a good finish for the outside.

#### FERNS AND FLOWERS OF CALIFORNIA.

Mr. Vick:—I send with this letter some specimens of Ferns, that you may see how variably they are marked upon the lower surface of the leaves by the different colors and arrangement of the pollen or ferndust. I would like to know if each pattern or color is a different species. A gardener told me they were Gymnogrammas, or at least some were. Are all? The Ferns become dormant during the dry season. They grow principally on the north side of wooded mountains. Those that are near springs live all summer, and put up new fronds constantly. I have never found the delicate Ferns low down in the valleys—the prettiest grow highest up.

In the bottom of the box are a couple of roots of a plant I wish you to name. The blossom is borne on the tip end of the stalk, and that is from a few inches to two and one-half feet high. I enclose a fresh blossom, but fear it will wilt. They are exquisitely fragrant. The local name is Mountain Lily, and the plants grow on the shady mountain sides of a canyon several miles from me. It is very moist where they grow so profusely. Some one told me it was Solomon's Seal. I do not know that I ever saw Solomon's Seal. Another says it is a species of Convallaria, and I think very likely, as it has some of the characteristics of Lily of the Valley. The

top dies down during the dry season.

I enclose some seed of the Yucca that grows here. It is different from the illustrations of the Yucca that grows in Florida. It is called by the same name, Spanish bayonet, but the Spanish people call it Quixote. One thinks at once of Don Quixote and the wind-mills, and wonders if its name is really an allusion to that doughty knight. I am very fond of flowers indeed, and can say truly that the Spanish bayonet of this state is the most magnificent and beautiful flower I ever saw. The stalk is from six to eight feet generally, and hung with hundreds of very fragrant white bells. It is far superior to Yucca filamentosa in beauty of appearance.—Mrs. U. P., San Luis Obispo, Cal.



The Ferns received with this communication, as shown in our illustration, are some of those beautiful California species, *Gymnogramma triangularis* (I) or Gold Fern, and *Pellæa andromædifolia* (2).

The flowering plant is False Solomon's Seal, (3) Smilacina racemosa, a near relative of both the Convallaria and of the True Solomon's

Seal, (4) Polygonatum biflorum. Both are interesting native plants, and may be cultivated to advantage for ornamental purposes in appropriate places, where they can have the shade necessary to them, as in the neighborhood of large trees and in the shrubbery. In England, Solomon's Seal, of different species and varie ties, is receiving considerable attention as a



decorative plant. There it is not only planted in the open ground, where it can be more freely exposed than it can here under the blaze of our summer sun, but is also employed as a potplant, and for this purpose is said to be quite effective. The London *Villa Gardener* says:

"It is as a pot-plant that we would especially recommend the Solomon's Seal. By dividing a stool or two of it every year and planting at eighteen inches or two feet apart in fairly good soil, a sufficient stock would always be kept up for potting, for forcing, or for potting up merely for flowering in the window or conservatory. For the latter purpose the plants need not be potted up till the middle of March. might then be set in a cold-pit or any out-ofthe-way place till they have made some progress, or be placed in the window at once, where the whole of their growth could be noted and seen. After flowering, they could be returned to the ground, to be kept clear of weeds during the summer, and potted up again the next or following season."

NEW PLAN OF PREVENTING LETTUCE RUNNING TO SEED.—The best heads of Lettuce often run to seed and become unfit for table. A German paper says this can be avoided by drawing a knife through one-half of the stem to which the head is attached. The sap, or, as it is called in Germany, the milk, will flow and rob the head of the power to open, yet enough sap will still remain to keep it fresh and growing for another week or so.

#### COWSLIPS AND HOUSE-LEEKS.

MR. VICK:-In the May number of last year is the cut of a flower which, you say, is the true American Cowslip. I send you, enclosed in this, the leaf and two flowers, red and yellow, of what I have always been taught was the Cowslip. The yellow specimen I send is very poor, as it was the first and only flower in bloom. The red has been in bloom some time. I have still another variety, the double red, that blooms a little later. If it is not the Cowslip, please tell me what it is. I also send a Geranium leaf, concerning which there has been some dispute. I claim that it is Balm Geranium, as it has an odor of that plant; others say it is not. Now, if I am wrong, I wish you to teach me right, and tell me what it is. The thick leaf that I send was given to me for Wax Plant, and is known here by that name. I tell them Vick's Catalogue says Wax Plant is a climber. This is not a climber. It branches freely, sends out roots from the stems, and, although I have had it several years, it has never bloomed. I think it is the same plant that Mrs. E. B., Sheridan, Oregon, and J. W. Z, Powhatan, O., describe in the March number of the MAGAZINE. Please tell me its proper name, and if it ever blooms .- M. FANNIE D., Lively Oak, Va.

The flowers received were Primroses, Primula veris, and as such are the genuine English



ENGLISH COWSLIP

Cowslip, and no other plant is known as Cowslip in England. The *Dodecatheon Meadia*, as stated in the May number of last year, is called the American Cowslip, and, besides, in this country, the Marsh Marigold, *Caltha palustris*, is called Cowslip, so, when we speak of Cowslips, nothing precisely can be understood with-



AMERICAN COWSLIP.

out giving the botanical name or describing the plant. If the Caltha should always be called Marsh Marigold for its common name, as it ought to be, and the Dodecatheon, American Cowslip, then there would be some certainty in the use of these popular names, and when Cowslips were

spoken of we should understand the English Cowslip.

We are not able to decide exactly about the leaf in question of the scented Pelargonium, but think it a variety of the Balm.

The thick leaf is the leaf of a *Sempervivum*, commonly called Live-for-ever, and House-Leek. The most common species, *S. tectorum*, is also known as Hen and Chickens. Plants of the different members of this family are now



SEMPERVIVUM ARBOREUM.

considerably employed in carpet-bedding. S. Californicum is a very handsome kind for edging or bordering. An upright-growing species, S. arboreum, can be used to good effect frequently as a center plant for a bed. The peculiarity of these plants is that they live and

thrive on light, sandy soils and endure heat and drought. They are very tenacious of life, but they will not endure a great amount of frost; S. tectorum is probably the most



S. CALIFORNICUM.

hardy species. The nearly related genus, Echeveria, has within a few years come into prominent notice as a bedding plant, and many varieties of it are offered by plant-growers. The leaves of some of them have a metallic lustre very striking. Besides their use for carpetbedding they are very ornamental as greenhouse plants, and produce immense quantities of bright flowers. It is somewhat surprising that plants so well known as either the House-Leek or the Wax-Plant should have their names misapplied, but this is only an instance of the reign of confusion we should be in with plants, if we should depend on popular names.

## THE NATIONAL FLOWER OF GERMANY.

Mr. Vick:—I must testify also to the gratification afforded me by your interesting Magazine. It is said that "love of flowers is the only pleasure which age does not dim," and I am quite willing to believe it.

Will you allow me also to tax your patience by a few questions? A friend and I differ as to the Court-flower of Germany, called the Corn-flower. I think it is the Wild Poppy; she thinks it must be the Bachelor's Button, Centurea Cyanus. Are there several Corn-flowers, or but one?

I have a variety of garden Roses which are very fine, but am unsuccessful with house Roses. Those raised in the greenhouse lose their vitality, and after a season stand still awhile and then die. Can there not be a special cultivation for window-gardening? If not quite so freaky they would be more satisfactory. Is it true that Roses do not thrive with Geraniums?—V., Digby, Nova Scotia.

The Bachelor's Button, *Centaurea Cyanus*, is the Corn-flower, and is highly prized by the Germans, and though it can hardly be called the Court-flower, still, it is esteemed by them about as the Thistle is by the Scotch, or the Shamrock by the Irish. Only the blue variety receives this distinction; the Prussians, no doubt, associate it with their national color. Schiller commences one of his poems

"Bring in the golden sheaves and surround them with the azure Cyanus."

Roses raised and flowered in pots should have seasons of comparative rest after blooming freely; they should be annually repotted, and always before starting into strong growth should be pruned. The flowers are borne on the new wood, or that that has just finished its growth. During the season of greatest activity several successive growing periods occur, and at their close are as many succeeding blooming periods, and during these periods water should be given more liberally than afterwards, and the plants at such times should also be sustained by the occasional use of weak manurewater. One of the most frequent mistakes made in the house-culture of Roses is keeping too high a temperature, at least in the daytime, and allowing it to drop too low at night. An even heat, as near sixty degrees as possible, is best. The sunshine may raise the heat ten degrees, and it may fall at night to fifty degrees, but these should be about the limits. Syringing or spraying the foliage frequently with clear water and keeping a moist atmosphere in the room will secure the plants from attacks of red spider, and check to a great degree the increase of the green-fly. It is one thing to receive a strong plant from the florist, carry it through the blooming season, enjoy its fragrance and beauty, and afterwards allow it to live if it will, and it is quite another thing to care for the plant in such a way that it will maintain its thriftiness-this is the result of skill and attention.

# LEPTOSIPHON, SCHIZANTHUS, WHITLAVIA.

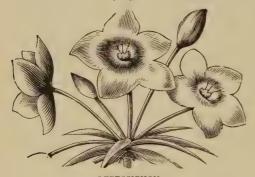
MR. VICK:-You must have faith in the truth of the saying, "It is more blessed to give than to receive," or you never would afford so beautiful a book as your MAGAZINE for so low a price. I finished reading the bound volume for 1878 to-day. It is a perfect feast. I have just been testing the index, and had no trouble in finding anything I wished to refer to. How can any one bear to mutilate your perfect MAGAZINE by cutting out the chromos to frame. I was pleased to read your answer to a correspondent, giving the names of the Gladioli figured in the March, 1878, number. I hope that you will, in future, give us the name of each named flower you illustrate. Give us the names of those Dahlias in the February number of last year. I am longing for that steel engraving. Why do not some of your readers praise the Schizanthus? It blooms a long time, and is very delicate and beautiful, especially the white. It is very nice to cut for vases. Delphinium looks coarse beside it. Leptosiphon, too, is very pretty,



SCHIZANTHUS.

the pure white, particularly. You say it grows six inches in height, but mine grows to fully three times that height. I have grown tired of Zinnias, and even the beautiful Balsams, Stocks, Phlox, &c., claim less of my enthusiasm than they once did. I counted 1786 Portulaca blossoms in my yard one morning last summer, and I am just as glad as ever each season when the first Portulaca opens its bright eye. I have a border forty-five feet long and one foot wide. I fill it with Portulaca in all colors, and it attracts much attention. The flowers have the appearance of growing in the grass. I think Nemophila is perfectly sweet. Whitlavia is one of my favorites; I give it the shady side of a fence, and it grows fifteen inches high, for me. I was pleased today, in examining my garden, to find young Wistarias, bulbs, &c., alive and well after the hard winter. Eryngium Leavenworthii bore the hot weather of last summer well. It is a striking plant in the garden, and is very useful in the winter on account of its everlasting character. It gives plenty of seeds.—Julie Beers, Bucklin, Mo.

The Schizanthus, when in good condition and covered with flowers, is a beautiful plant, looking almost as if a flock of butterflies had settled upon it. The Leptosiphon is a pretty flower, but sometimes fails in our hot, dry summers, and we are glad it does so well in Missouri. Perhaps our correspondent gives it the benefit of a little shade, as she does the Whitlavia. We are always glad to hear of the suc-



cess of our friends with those flowers that are considered a little difficult of culture, although we are a little careful in recommending them, because so many of our readers are inexperienced and need success for encouragement, before encountering difficulties. Good generals, we believe, never put new recruits in the heat of battle, although, to own the truth, we don't know any more about war than a brigadiergeneral. A good many choice kinds are rather difficult to make germinate. There is that pretty Abronia fragrans, that grows so abund-



SALPIGLOSSIS.

antly in our western Territories, we have never had much success in growing; and, indeed, failures were so general that we left it out of our Catalogue seven years ago; though one reason for doing so was that it was so difficult to obtain seed some seasons. From one of our friends in Colorado we have recently received a box of plants in good condition. We observe some seedsmen are this year offering it as something new.

In giving colored plates of flowers we select those that are good representatives or types of the different classes, in each of which there may be half-a-dozen or more of equal merit; for instance, in the Dahlia plate referred to we gave six flowers of natural size and color-four of the large and two of the small-flowered varieties—and showing, white, yellow, the different shades of red, and variegated. The two small flowers were copied from Ardens and White Aster; the large yellow variety from Yellow Boy; the very dark red, John Standish; the very large red, Mirefield Beauty, and the variegated flower, Queen of York. The truth is, we could select flowers with other names that would be so nearly like these that good judges could scarcely tell the difference. That engraving is in the hands of the artists.

#### A SUCCESSFUL WINDOW-GARDEN.

Mr. Vick:—You have plenty of beautiful flowers, I know, but I thought I would like to have you see some of the flowers that grow in my Window Garden. Please accept this box of flowers as a token of my good will. I am too much of an invalid to have many flowers in the garden, and so try my skill at window gardening. I do not like to give up my flowers entirely in the garden, and usually send for a few seeds every spring and should have many more if I had better health. With one or two exceptions, I have cut one bunch of flowers from each variety of my Pelargoniums, and could fill three more just such boxes as I now send you and have some left. Perhaps you can judge something of my success in window gardening.

I must say one word for your Monthly Magazine. I like it very much, as it is all about flowers, and that is just what I like.—Mrs. C. S. R., Bridgewaier, Vt.

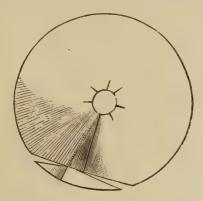
On the morning of May 2nd we received by express the box, and when it was opened found it full of large trusses of the most beautiful varieties of fancy Pelargoniums, there being about thirty different kinds. We think this very skillful window gardening, and it will be a pleasure to us to lay before our readers a statement of Mrs. R.'s treatment of her plants, and a description of her windows and room. We desire to have these beautiful plants portrayed to our readers by our friend's graceful pen as clearly as we have seen them by means of the bright, cheery flowers.

WATER LILIES.—FLORENCE C. BARTON, of Minneapolis, Minn., writes: I cannot refrain giving a report of the white Water Lily I planted last spring. It was a source of pleasure to us all summer, growing finely, as you may judge when from that one root we had sixteen blossoms.

#### CARNATION BUDS BURSTING.

I saw in the November number of the MAGAZINE a communication from a person wanting to know how to prevent Carnations and Pinks from bursting. Being an old Carnation-grower in the old country I will give one plan which I have practiced with success. It is to truss them. The truss is made of white pasteboard, like the enclosed pattern. When hooked, it should be slipped close under the petals.—E. W., Cayuga, Ontario.

The plan described is the old method, and a light wire will answer the purpose, but the aim



now is to obtain varieties that will not need such aid. It is true, however, that the finest flowers usually have this failing to some extent.

#### HYACINTHS AFTER BLOOMING.

Mr. James Vick:—I write to you for a little information, and suppose you will kindly give it. I received a dozen Hyacinth bulbs last autumn, and they did finely, many of them sending up three blossom-stalks; they were the admiration of all. Now, if you please, I would like to know what to do with them. There are a number of little bulblets. Should I put both old and young out in the ground this spring? If so, when should I take them up for winter-blooming? I find in your Magazine directions for indoor cultivation, but no where what to do with them after blooming, and I know they will not do much just potted for winter again.—J. E. Van C., Unadilla, N. Y.

The flowering bulbs and the little bulblets can be planted out in the ground, where they should all remain—the bulblets until they become of flowering size, and the large bulbs as long as desired—that is, they may be taken up annually and replanted, or left in the ground. They will not again make suitable potting bulbs. The only way to have satisfactory bulbs for winter-blooming is to purchase annually Holland-grown bulbs.

# PANSIES AND BALSAMS.

MR. VICK:—You should see my Pansy bed! I procured the seed of you last summer, sowed it in a box, and transplanted the first of October. They grew well and I covered them with weeds and brush until the first of February. They have been in bloom for five or six weeks, and there is almost every variety, and I think some of them are as fine ones as ever grew. They are very large. One variety is gold and purple edged with gold. I don't think there could be any more beautiful.

My Balsams are perfect beauties, equal to Roses, and of all shades, spots, streaks and colors. The Pansy and the Balsam are two of my favorite flowers, and I think no garden is complete without them.—G. W. D., Mitchell, Ind.

The pleasure derived by our correspondent from the Pansies and Balsams is due not only to the exquisite beauty of these flowers, great as that is, but, also, to the fact, that they are the result of the care and labor and watchfulness bestowed in rearing them. If you would have the greatest enjoyment from flowers, raise them yourself; plant the seed, tend them with your own hand, watch over them and minister to their wants. In this way to some extent you become identified with them. By their daily growth they respond to your attentions, their bloom is your hope's fruition, their beauty is the realization of your ideal.

# SEASONABLE HINTS.

Mr. Vick:—Cannot you give us one column in your valuable Magazine with "Instructions for the Month?" Telling some of us dumb readers, very plainly, just what we are to do, and how to do it; explaining as if you were instructing a child ten years old. I think such a column would be very acceptable to hundreds of your readers. Please don't say "prepare the ground the same as for Tulips," but consider that we know nothing about Tulips, and that we are babes, just learning to talk.—Anxioustolearn, Pottstown, Pa.

We try to talk very plain, and give the most simple instructions. But those seasonable notes trouble us sorely. We have tried it, written a good many, and thrown them away as worthless. Our country is too large and our climate too varied. While we were telling people to uncover the Hyacinth beds and plant Peas, some of our readers would be feasting on Strawberries, and others would forward us ripe Peaches, just to show what nonsense we were writing.

### GARDEN FLOWERS IN MISSOURI.

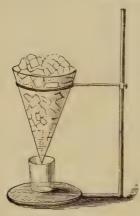
I am glad each season when the first Portulaca opens its bright eye. I have a border forty-five feet long, and one foot wide. I fill it with Portulacas in all colors, and it attracts much attention. The flowers have the appearance of growing in the grass. I think Nemophila a pretty bloomer. Whitlavia is one of my especial favorites; I give it the shady side of a fence, and it grows fifteen inches high for me. I was pleased to-day, in examining my garden, to find young Wistarias and bulbs alive and well after the hard winter. Eryngium Leavenworthii bore the hot, dry weather of last summer well. It is a striking plant in the garden, and is very useful in the winter on account of its everlasting character. It gives an abundance of seeds.—Mrs. F. M. B., Bucklin, Mo.

We are pleased to hear of the hardiness in Missouri, of the Texan Sea Holly, *Eryngium Leavenworthii*, a plant interesting on account of its fine form and its rich, violet-colored heads and involucres. It can be employed to good advantage in sub-tropical gardening.

#### GATHERING THE ODOR OF FLOWERS.

I have been informed that in some of your works you published instructions for gathering the perfume of flowers when floating in the air. This seemed curious, and I have searched your MAGAZINES in vain for any allusion to the subject. Please tell us if it is practical.—Jas. S.

Some time since, we alluded to a process described by Dr. SMEE in his interesting work, My Garden, in which he says his son devised a very simple and successful plan of saving the odor of flowers, in fact, extracting the odor from



the perfumed atmosphere. He uses a glass funnel, as shown in the engraving, such as is employed by druggists, the narrow end brought to a point, or where this is not convenient the opening could be corked securely. In this funnel he places lumps of ice with salt, which, of

course, makes the glass very cold. The funnel is attached to a common retort stand, as shown in the engraving, and is placed near the flowering plants. Water is deposited on the outside of the glass, like water on the outside of an ice pitcher, and gradually trickles down and drops into the glass below, and is found to be highly perfumed—natural perfumed water. It will turn sour after being kept a few days unless pure alcohol is added. This may never be of any very great practical value, but it certainly affords a very good opportunity for experiment and amusement.

#### THE BLUE-ROSE FRAUD.

Mr. Vick:—There are some parties here from San Francisco, or some place near there, canvassing for the sale of Japan Persimmons and California fruits, and they exhibit plates of a deep blue Rose, large and double. I claim there is no blue Rose. They claim it was produced three years ago by grafting in Oak-wood. Hundreds are subscribing for it. I want to know if you ever saw or heard of a blue Rose. I will publish your reply.—T. H. Parks, M. D., Parsons, Kansas.

Every year the people are defrauded by some such humbug. Perfumed Turnip seeds are sold for seeds of strange and new plants of wonderful beauty, and plants with names unknown to florists and botanists are peddled about at high prices, and they prove in the end not only common but worthless. The people who read certainly should not be deceived. When the blue Rose is grown, as it probably never will be, we shall devote a page to its description, and probably present our readers with a colored

plate, and half the papers in the country will be talking about it. It is not our design to allow any new flower of value to pass unnoticed. We have advised our readers that blue and yellow flowers are seldom produced by the same species. The people however, we suppose, will continue to encourage dishonesty by purchasing the worthless wares of these swindlers, while for the honest dealer, who tries to tell the exact truth about his goods, they will not have a dollar to spare. Truly, many people like to be humbugged, and we feel sometimes like using the Saviour's words, "The poor ye have always with you," with a slight change of a word.

#### CAPSICUM BACCATUM-BIRD PEPPER.

MR. JAMES VICK:—As you have at great expense improved nearly every flower and vegetable you could find, please find enclosed a few Pepper pods of the Texas and Mexican kind. It is very hot and strong, and better than any other red kind. It will cross with other red kinds; grows wild in river and creek bottoms and in fence corners. The roots remain in the ground, and it grows for several years from the same roots, and when in good locations it becomes a pretty large bush. Our winters are mild, ice scarcely ever more than one and a half inches thick. By covering the Pepper with straw perhaps you can keep it in winter, but you know more than I can tell you about that. This Pepper makes the best Pepper-sauce, and the Mexicans make great use of it —C. C. W., Live Oaks, Texas.

Mr. Vick:—I keep some Canary birds, and I see recommended in the bird books to give them sometimes Bird Pepper. Now, what is Bird Pepper? The seedsmen do not know, and I do not find it in any seed catalogue. Your very readable article in the March number of the Magazine made me think that possibly you might know what was meant.—C. H., Worcester, Mass.

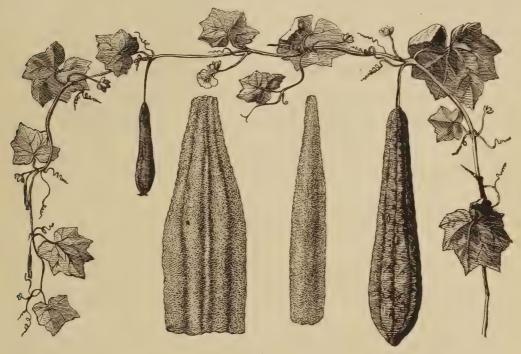
The Bird Pepper is Capsicum baccatum, a shrubby plant, from one to two feet in height, found wild from southern Texas to Arizona. The fruit is scarlet and not much larger than a Black Currant. It is something like the Cherry Pepper sold by seedsmen, but not the same, as is sometimes thought. It is customary to give Canaries a little red Pepper at the moulting season, but we do not think this little Bird Pepper posseses any merits for this purpose over other red Peppers. We have many varieties on trial this season, and among them those sent by our Texas correspondent, which is, without doubt, the true Bird Pepper.

AUSTRALIAN INTERNATIONAL EXHIBITION.—There is to be a grand International Exhibition at Sydney, Australia, commencing on the first day of September next. Mr. CHARLES MOORE, Director of the Botanic Gardens, hopes to see many European and American Horticulturists, and kindly promises to do all in his power to make their visit both pleasant and profitable.

#### DISH-CLOTH GOURD.

MR. VICK:—I have grown a good many Gourds, and like them on account of their curious forms. Ladies who have traveled south tell me that a Gourd grows in that section, the inside of which contains a fibrous substance something like lace work, and that it is superior to anything made for dish-cloths. Is this true? and, if so, can this Gourd be grown as far north as Cleveland, Ohio. I don't suppose there is any real practical value in this thing, but, if there is a chance, I would like to try for myself, if only for curiosity. Can you tell me where I can obtain a few seeds?—A. M. R.

This Gourd we have grown in Rochester, and send our friend a few seeds. It needs all the help you can give it, for it is natural to a rather their use, is pretty universal; and there is sometimes, we think, a good deal of anxiety felt on the subject by ladies. We know that once, on a steamer crossing the Atlantic, the ladies were quite indignant because they observed the cooks and their helpers throwing the dish-cloths at each other, and putting them to other inappropriate uses. We have also heard it said that the less you know about the dish-cloths at hotels the better the appetite. That there should be no excuse for unclean dishes nature has provided us with a vegetable dish-cloth. This strange cloth is the product of a



more southern clime. We have received specimens of this fibrous cloth from very many of our friends south, made into various fancy arti-A watch-case and a card-receiver are now before us, the latter doing duty as a holder of postage stamps. Wonderful is the provision nature makes for the wants of man. This provision, too, is wisely adapted to his varying necessities. What deliciously refreshing fruits the traveler finds toward the tropics, just suited to his failing appetite, when even the sight of ordinary food would cause loathing. Wandering about the sea-washed coasts of Great Britain, steeped in fog, and inhaling the salt breezes of the ocean, with what contempt one would look upon Bananas or other luscious fruits of warm climates, and what a relish one gets for the "roast beef of old England." In the absence of tin-peddlers, how good it is to be able to furnish our own dippers, and even bottles and sap-buckets, from the Gourds in the garden. To come down to the subject-Dish-cloths, or

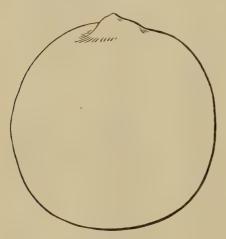
Gourd, the Papanjay, or Sponge Cucumber, Cucumis acutangulus. It is a sponge-like cloth, in which the seed is enveloped, and ladies say, answers the purpose better than anything yet prepared by art. The fruit is large—some two feet in length—and the vine of a rampant growth. The engraving will give some idea of the appearance of the vine and the fruit, and also of the cloth-like substance formed in its center. The two central engravings show it as taken from the Gourd and after being opened for use. This Gourd is a native of the East Indies, and will not ripen far north. However, we tell the story of the dish-cloth.

BOTANY.—A course of twenty lectures are to be delivered, in London, to young ladies, by Rev. George Henslow. They are particularly adapted to the requirements of teachers, and the Society of Apothecaries has determined to undertake, this year, a competition for prizes in botany for young women under twenty years.

#### ORANGE AND LEMON TREES.

Scarcely a week passes without our receiving inquiries about budding Lemon or Orange trees. An opinion appears to be prevalent that seedling plants will not produce flowers or fruit without budding. It would seem almost impossible that such an error could be entertained, and yet we know it to be wide spread. A large proportion of the Orange and Lemon groves of Florida and other sections are planted with seedling trees that are never budded. An Orange seedling fruits as freely as an Apple seedling. Varieties are propagated by budding, but much good fruit is produced by seedlings.

Florists who raise Orange trees solely for their blossoms, bud them with those kinds that are known to be abundant bloomers. One of the best of these is a dwarf variety called the



Otaheite Orange; it produces a great abundance of fragrant flowers and a small, worthless fruit. Seedling plants may sometimes require to be older than if budded; and sometimes not. The outline figure here shown is of a Lemon produced on a tree nine years old from the seed; the tree is now five feet in height, and this spring has matured three fine fruits, nearly equal in size. One of them measures four and one-half inches in length, and four inches in diameter the short way; they are nearly round and very fragrant, having an odor almost like a Peach. We call it the Grandma Lemon. This tree has been reared from the seed in a pot and trained by the skillful hands of one who all her life has loved and reared plants. The snows of nearly ninety winters have left her locks white and thin; but the sunshine of as many springs and summers, and the smiles of the flowers, have gladdened and warmed her heart. Not in the least has age chilled the fervor of the admiration which she developed for flowers when a child, and with which, also, she has imbued the hearts of her children.

These beautiful fruits, the last in a long life, are only symbols of a fruitage that has honored her for scores of years, and that in the future shall continue to "call her blessed."

#### FLOWERS IN NORTH CAROLINA,

MR. VICK:—I have been wanting to tell you about my flowers for some time. I had good success last season; I grew forty-two plants from the double Petunia, and thirty-seven Verbenas, from a paper of seed each. The Petunias I set too thick, and part of them were killed out. There were several double and very pretty; I took them up and two of them are now in bloom, the admiration of all my friends. Last summer one of them bloomed red with little white specks in the centre; this spring it bloomed white with stripes and blotches of red. It is the most beautiful flower I ever saw, and has the fragrance of the Carnation.

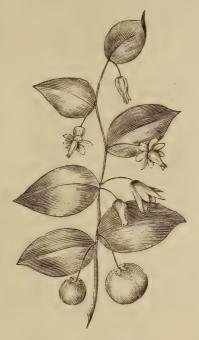
But my Pansies made the most show of anything. They did not bloom much last summer, so I covered them with Pine boughs; when I removed the boughs the Pansies were budded, and have been one mass of flowers all the spring. The great difficulty here is extreme droughts and hot sun; the ground becomes so dry and hard that with all the watering we can give seeds will not come up. I find that the only way to ensure success is to plant in boxes and lay glass over them. I had a white Petunia in a box on my piazza last summer; I took it into the house, and this spring it bloomed a beautiful carmine.—A. M. R., Bush Hill, N. C.

To Drive Away the Curculio.—The best remedy I know to prevent the curculio attacking the Plum, is to dampen some rags with coal oil and string each one on a wire, and twist the wire together and hang it on a small twig, not letting the oil touch the limbs, as it would kill them. This must be done before the fall of the flowers. It is the perfume that drives the curculio away, and every one must be his own judge as to how many rags to hang in the trees. We have tried this remedy for many years, and never had any stung.—S. M., Irvington, Ind.

COFFEE GROUNDS AS A FERTILIZER.—A lady of San Francisco received some plants from Mexico, and with the plants came the advice to fertilize them with waste coffee and coffee-grounds. This was done, and the results were so satisfactory that the same treatment was tried on Roses, and the result was "a healthy and vigorous growth and more and better flowers, and of richer colors."

#### SMILAX BERRIES.

I believe it is not common for the Smilax to bear berries. I have grown Smilax a good many times, but never with such success as this



year. The reason is, I think, that I have now a tolerably warmer window, where the heat is pretty steady and free from drafts. This is the first time I have had both flowers and fruit.—Q.

# RIBBON BED OF TULIPS.

MR. VICK:—In the autumn of 1877 I planted a ribbon bed of Tulips, and, by your advice, selected four varieties that you thought would flower at the same time. I had previously attempted this thing, but the effect was destroyed because one kind would not bloom until the other was going out of flower. The kinds you recommended were Samson, a bright red; Yellow Prince, bright yellow; Standard Royal, red and white striped, and Thomas Moore, orange. The three first named opened their flowers, in 1878, on the 20th day of April, and Thomas Moore on the 21st. So you see there was but one day's difference in the time of flowering, which was a pleasant surprise to me; and what is still more remarkable, is the fact that there was exactly the same difference this year. The three first commenced flowering on the 5th day of May, and the last on the 6th. This shows that these kinds can be relied upon for simultaneous flowering, and for ribbon bedding I can particularly recommend them; and it also shows that the spring of 1879 is fifteen days later than that of 1878. - F., Monroe County, N.Y.

#### PUFF-BALLS.

CHARLES H. PECK, A. M., in a paper read before the Albany Institute on the genus Lycoperdon, Puff-balls, says "the Puff-balls are useful because they are edible. None of the species are considered dangerous or even hurtful, yet some are so small and so scarce that they are not of much value for food. As an article of food they have this advantage over Mushrooms, they are not often infested by insects or their larvæ, and there is scarcely any possibility of mistaking deleterious species for them." He gives the names of six species, the edible qualities of which he has tested, but two of them, L. gemmatum and L. pyriforme, he does not recommend, since they are not well flavored. There is no doubt but most of the Puff-balls are good for food, and some of them of fine flavor.

# THE COCKSCOMB AS A DYE-PLANT.

MR. VICK:—In the summer of 1877 I had the handsomest Cockscomb bed I ever saw, and such splendid varieties, that when I saw the ones exhibited at the fair, I wished I had mine there to shame them. But, like all very beautiful things, Jack Frost found them when I least expected. And, as I wanted them for winter bouquets, I put them in cold water, to draw out the frost, and, to my great surprise, my Cockscombs were ruined. But I had the lovliest dye I ever saw. I think, if you would put a professional dyer to work, next fall, with your stock, some valuable dyes could be manufactured out of them.—MRS. H. A., Cordova, Ill.

# THE WATER LILY IN WINTER.

MR. VICK:—Two years since I obtained a root of Nymphaa odorata. I planted it in a tub sunk even with the surface of the ground and have not moved it since. The tub was full of leaves in the fall, blown from the trees. I placed a wooden cover over it, then covered well with leaves, and some boards to keep them down, and it is now growing finely, although the temperature has been 28° below zero. The impression with many is that it is necessary to remove them to the cellar during winter. It is very hardy, growing luxuriantly as far north as Wisconsin.—A. V. P., Oskaloosa, Iowa.

WINTER PANSIES.—I sent the Pansy seed received from you last year to a sister, with good results. She had the largest and finest flowers in town. Left the plants unprotected through the winter, save by the snow, and had flowers in January, a few days after the snow melted, and now they are in full blossom.—E. T. G., Chicago, Ill.



# BOTANY FOR LITTLE FOLKS.

A flower cluster having the separate flowerstems all start from the same point, or at the extreme upper end of the peduncle or main stem, such as shown at figure 184, is called an umbel. The whorl of leaves at the base of the



Fig. 184. Umbel.

umbel is the *involucre*. Some plants have umbels with invovolucres, and some without. There is one family of plants of which all its numerous members have their flowers in umbels; to be sure they have other features in common, some

of which are present in the plants of one branch of the family, and some in another, but however these related plants may differ from each other, whatever of the family traits may sometimes be absent, this one always presents itself—the flowers are always borne in umbels. If in one or two cases there are apparent exceptions, the practised eye will detect the essential umbel arrangement. This peculiarity has given



Fig. 185. Fæniculum vulgare. (Fennel.)

the family its name, *Umbelliferæ*, meaning umbel-bearers; sometimes they are called Umbelworts, or Umbellifers. Our illustration at figure 184 is that of a simple umbel, but often the flower stems divide into branches a second time, forming several little umbels; these little

umbels are called *umbellules*, which means little umbels. The whole head together is the *umbel*, and each part is an *umbellule*; this arrangement may be clearly perceived in the accompanying illustrations. At fig. 185 is shown an umbel, a cluster of seeds, the flowers having fallen, of the common fennel. This umbel is divided into a number of parts or umbellules. This umbel has no *involucre* at its base, nor has any of its divisions; when the divisions of the



Fig. 186 Æthusa Cynapium.

umbels, or umbellules, have whorls of leaves or bracts at their bases, these whorls are called *involucels*.

As a number of new terms have now been mentioned let us recall them, to be sure that they are clearly understood. There is the flower-cluster, the *umbel*, and its divisions, called *umbellules*; the whorl of leaves at the base of the umbel called the *involucre*, and the whorl at the base of the umbellule called the *involucel*. Each umbellule is supported upon a stem called a *peduncle*, and this peduncle di vides into a number of *pedicels*, each supporting a flower.

Sometimes the umbellules are provided with bracts or involucels and the umbel itself is without or naked; such is the case with Fools' Parsley, Æthusa Cynapium, represented at fig. 186. How slight the difference between this form and the previous one, and yet how clear is the distinction! Let us now look at still another form, that of the Carrot, Daucus Carota, fig. 187, which has an involucre at the

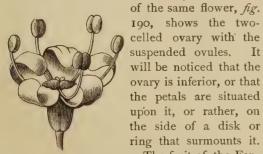
base of the umbel, and an involucel at the base of each umbellule. These resemble each other, only differing in size; each bract consists of a number of linear divisions. In the wild Parsley, shown at figure 189, is another example of both involucre and involucels. In this case the bracts of the involucre are very few and those of the involucels are small and fine, in fact,



Fig. 187. Daucus Carota

they are hardly to be seen in the engraving without the use of the magnifying glass. wild Parsley is the same plant from which by cultivation is derived our garden Parsley.

With one or two exceptions all the umbelliferous plants are herbaceous and have divided leaves, some finely so, and these are situated The stems are hollow or pithy, alternately. and the leaf-stems or petioles are sheathing or clasp about the stem of the plant. The flowers usually are white or yellow, those of a few kinds only are pink and blue. An examination of the flowers show that they have five petals and five stamens, and a five-lobed calyx scarcely developed and adhering to the ovary. A flower of Fennel magnified, fig. 188, gives a general idea of the structure, and a magnified section



190, shows the twocelled ovary with the suspended ovules. will be noticed that the ovary is inferior, or that the petals are situated upon it, or rather, on the side of a disk or ring that surmounts it.

The fruit of the Fen-

Fig. 188. Fennel Flower. nel, that is, the ripened seed-vessel, fig. 191, is shown magnified with its two parts or carpels separated from each other but still attached by their fine supports, which are two slender prolongations of the peduncle through and beyond the receptacle. By comparing the same parts as represented in figures 190 and 191, the general structure of the fruit will be clearly comprehended. give an idea of the interior of the fruit still

more particularly, let us glance at a magnified cross-section of it as given at figure 192. Its exterior surface shows ridges and furrows; the small black dots in the walls of the pericarp indicate channels or tubes containing aromatic oil, to which is due the peculiar aroma of such seeds as Fenner, Dill, Coriander, Anise, Caraway and others. The diagram of the flower magnified. fig. 193, displays the same arrangement in the young ovary. In this diagram the tri-curved dark lines represent the petals, and between them are indicated the positions of the stamens with their two-lobed stigmas; no calyx is shown, for though in theory there is supposed to be one, yet it adheres to the outer surface of the ovary and is not developed above it.

Very few members of this family recommend themselves to us as ornamental plants, but among them are found many that are of the highest culinary value, and on the other hand no more poisonous plants are found in any other



Fig. 189. Petroselinum sativum.

natural order; even some of those that are healthful and nutritious in cultivation, are unwholesome in their natural or wild state. Some kinds of these plants that are comparatively harmless when grown on high, dry situations, are poisonous when found in low and damp grounds; and, as a rule, any umbelliferous plants found in moist, low places should be looked upon with suspicion, as poisonous.

The Carrot and the Parsnip, two of our most palatable kitchen vegetables, are members of this family; in their wild state they are natives of Europe, and are almost insignificant weeds with slender, tapering roots; by cultivation these roots have been enlarged, and have become fleshy and nutritious. In the case of the Parsnip so slight a circumstance as preserving the seeds of the wild plants over winter and sowing them in the spring, instead of the fall,

as they would naturally sow themselves in their wild state, has been found to make a great difference in the size and quality of the roots. Quoting the American Cyclopædia, "Prof. BUCKMAN, of the Royal Agricultural College, England, experimented on the improvement of the Parsnip from the wild state. He found that the plants from seeds sown as soon as ripe, and those from the same lot of seeds kept until spring and then sown, showed marked differ-

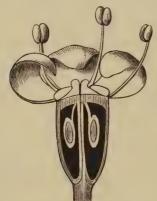


Fig. 190. Fennel Flower. Vertical Section.

ences; and he regards the keeping of the seeds out of the ground, from the time they are ripe until they can be sown in spring, as an important step in cultivation, as it places the seeds in a condition quite different from their wild state. The roots in two generations from the wild seed showed differences in form, including specimens with tendencies in their shape toward that of the established cultivated varieties. Selecting a root of promising appearance, he continued to breed from this, and by careful selection established a variety which in ten years was put in the seed market as the Student Parsnip, which still maintains a high reputation."

In many parts of the country the Carrot has



191. Fennel. Fruit.

escaped from cultivation, and runs wild in waste grounds and by the roadsides. In this condition it quickly reverts back to its original character; its white flowers, growing in large umbels, are frequently sent to us to learn what plant it is that produces them. The

Parsnip, Pastinaca sativa, not naturally growing in this country, is now now running wild in the same manner. We have also another plant called Wild Parsnip, Archemora rigida, growing in swampy meadows and low grounds. This plant is somtimes called Cowbane, and is particularly poisonous to cattle when eaten by them. It has white flowers, and is not as strong

a grower as the common Parsnip, which has vellow flowers. There is considerable difference in the appearance of the leaves. There is still another wild plant known as Cow-Parsnip, Heracleum lanatum, which grows in moist, rich ground. It is a large plant, growing from four

to eight feet high, and has a strong scent. The leaves are large and divided into three parts, and quite frequently the middle division is The flowers of this three-lobed. plant are white. It is not quite so poisonous as the preceding one, but sufficiently so to be carefully avoided. The fresh root bruised Fig. 192. Fennel Fruit. and laid upon the skin will pro- Cross-section. duce blisters.



The highly prized and wholesome Celery is an umbellifer and a native of Great Britnin, growing in ditches and low, moist grounds, and especially in the vicinity of salt water. this condition it is distasteful and unwholesome and even poisonous, in all its parts, including its seeds. As a cultivated plant it has become one of the choicest delicacies of a well supplied table, and its tasteful seeds are freely used as a healthful condiment in soups.

Fennel, which has served us in our illustrations, is made but little use of in this country. The editor of the revised edition of American Weeds and Useful Plants says: "The whole plant is highly aromatic. Those who kept bees, in former years, were much in the practice. when those insects swarmed, of rubbing the inside of the bee-hive with this fragrant herb, under the impression that the odor would attach



Fig. 193. Fennel. Diagram of Flower.

them to their new domi-It is chiefly cultivated for its aromatic fruit, which is occasionally used in domestic economy; and is sometimes smoked, like tobacco, as a popular remedy for colic. Those who have read the very charming pictures

early New England life, in 'Goodrich's Recollections of a Lifetime,' will recollect the mention of the custom of the old ladies to carry to church with them sprigs of Fennel to keep them awake during the long sermon, a practice which is not entirely obsolete. In the more primitive portions of the country, the patch of Fennel may still be seen growing, and the sanctuary is still redolent of its odors."

There is a species or variety of Fennel largely in use in Italy, that by cultivation has developed a thick, fleshy stem and thick petioles or leafstems, like Celery, and is considered a great delicacy. It is eaten raw and usually without seasoning, or it is used in garnishing stews, with drawn butter, gravy, or bread crumbs and maccaroni; for this latter purpose it is first boiled in water. At Naples and Venice, and all over northern Italy, so much is this variety of Fennel employed, that one can scarcely take a step in the cities and villages without seeing it; there is no table where it is not served from January to June.

One of the most poisonous of the umbellifers is the Poison Hemlock, Conium maculatum, supposed to be the plant from which the ancient Greeks extracted the poison with which they put to death their criminals, political offenders and philosophers, notably among whom was Socrates. It is a plant that has been introduced here from Europe, but has become naturalized and is now a frequent inhabitant of waysides and waste grounds in most sections of the country. It grows to a height of four or five feet, branching, and bearing small, white flowers in July. The stem is hollow, smooth and shining and covered with purple spots. leaves are compound, and the leaflets cut into smaller divisions; they are of a deep green color above, and paler beneath, and when bruised emit a fetid odor Cattle will sometimes eat this plant when first turned out in the spring and are seriously injured, and often killed by it.

The Water Hemlock is another poisonous plant of this family, inhabiting swamps. The species known as Spotted Cowbane, Musquash Root and Beaver Poison, *Cicuta maculata*, is a stout, coarse plant, growing from three to six feet high, with its stem streaked with purple; the leaves are compound with compound leaflets, and the flowers white. The root is a deadly poison. Quite a number of other plants of this family, more or less poisonous, might be mentioned, and many of them so nearly resemble some of the cultivated plants as to be very easily mistaken for them; but enough has been said to show their dangerous character, and to put one on his guard in meeting with them.

#### A BOY'S LETTER FROM OREGON.

I am a boy and I love flowers. Dicentras and Wallflowers, Satin-plants, Daisies and Pansies are in bloom here now. The Snapdragons are fixing to bloom. I have a flower bed myself, with Digitalis, Snapdragons, Holyhocks, Pinks, etc. Pinks, Sweet William and Portulaca are my favorites. I like to raise vegetables, such as Tomatoes, Onions, Radishes and Peas. Raspberries, Blackberries and Strawberries are nice things to have.—George W. B., Sheridan, Oregon.

# ANNA'S BIRTH-DAY PRESENT.

"I wonder what we had better get for Anna's birth-day present?" said Mr. Lester a week or two before the anniversary, which had always been celebrated with gifts of some kind.

"I hardly know what to get," said the mother. "She has so many books and dolls now, and every corner is full of her toys! I wish we could think of something to keep her out of doors more. She does not care for the swing unless she has company, and she plays with her dolls and reads so much that she is getting pale and thin. I am sure I do not know what to do with her."

The question was not settled when Mr. Lester started to the store, but a little girl just ahead of him gave him a clue. "Please, mamma," she said, "let me wear my old dress this summer; you can let it down a little and fix it up so it will do, and we will take the money and buy Tulips, and Lilies, and Roses, and have a little garden. I love flowers so much—please say I may have them, mamma." And then they turned a corner and were gone, but the question was settled.

Anna had tried to find out what her present was to be, but not succeeding she was completely surprised, and not much pleased, when she received it. First came a dozen choice Gladiolus bulbs, looking somewhat like small onions; then four rough, "humpy" things, looking as little like flowers as any thing could look, but they were marked, "Anemone;" next came a dozen funny little things marked, "Lily of the Valley," and a dozen packets of seeds.

Never had a girl such a curious birth-day present, and never was a girl so surprised as Anna. She forgot the kisses and thanks she usually gave after receiving gifts; but her parents did not notice that, and her papa took the Catalogue and read to her all it said about her bulbs and seeds, so she soon began to feel interested, and went to the garden eager to begin her work. Mr. Lester showed her how to make the beds, and, as it was vacation, she worked faithfully until her mamma, fearing she would get too tired, called her in to rest.

When the beds were ready she set out the bulbs, but she could hardly wait until it was time to sow the seeds. However, they were all planted at last, and then she watched very anxiously for their coming up. When they did come out of the ground how glad she was! She was puzzled, too, to see so many things coming up that she had not planted, but she soon learned to tell the flowers from the weeds, and a part of each day saw her weeding and hoeing in her little garden.

After many weeks she had her reward, for little buds came and, slowly expanding, grew into perfect flowers. Never had Anna seen flowers quite so nice and fragrant as her own were. Hers were "the brightest Pinks that ever grew," her Portulacas were "the handsomest ever seen," and her Balsams were "the doublest Balsams in the world." The Gladioli were "just splendid," the Anemones "perfect," and the Lily of the Valley "too sweet for anything."

She had disappointments, of course; but they come to all, and we must learn to bear them patiently. One packet of seeds failed to report themselves for duty; whether they were worthless, or whether the weather was unfavorable, I do not know. Then, a visitor's dog broke the only flower stem on one Gladiolus, so she must wait until next year to see what kind of flower that one has. But she had flowers in her garden, and mamma's vase was always full, and the little lame girl in the hut by the mill, where never a spear of grass dared show itself, had many a lovely bouquet that summer. gran'ma Peters, who was always grieving for Pinks and Marigolds of her youth was obliged to admit that Anna's Phlox and Verbenas were "good enough for any body."

Every day the flowers showed new beauties, and rejoiced her heart. Every day, now, she gave thanks for her homely birth-day gift, and her parents, seeing her happiness, and the growing brightness of her eyes, and the hue of health returning to her pale cheeks, rejoiced that they had chosen so wisely for their darling child.—R. D. BLAISDELL.

# AN EDITOR'S FIRST START AS A GARDENER.

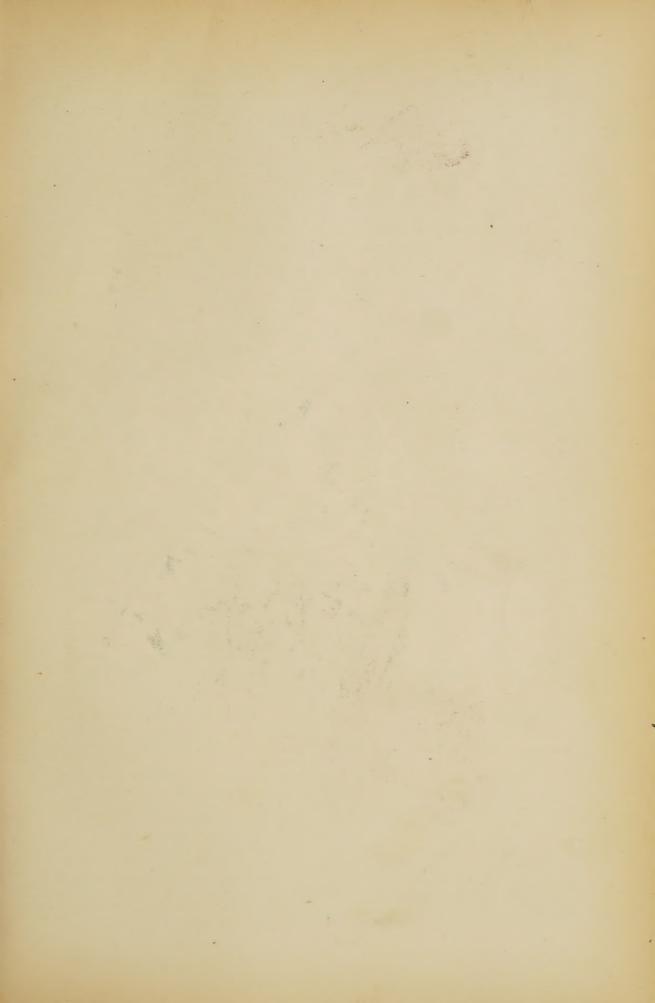
An editor in Michigan writes us a letter of his experience, when a boy, in gardening, which may be useful to some of our young readers: "A dozen years ago, before I had cut loose and drifted out on the uncertain sea of journalism, I was a boy, just at that age when the general American boy begins to feel the need of spending-money, and likes to feel that it is his own. In order to be independent I determined to earn my own money. As a 'starter' I sent a club to you for flower and garden seeds, taking my commission in seeds, which I sold at a profit. As this was not sufficient to satisfy me, I used all my ingenuity and the knowledge I could acquire from your works in constructing a suitable hot-bed. Here I sowed Cabbage and Tomato plants, and I am proud to say I had the earliest and best in the market. So flourishing was my business that I employed other boys to sell on commission, and when the planting season was over I was nearly twenty dollars ahead! And however successful I may be in after life, I am sure that no money I ever earn can give me the genuine pleasure I enjoyed in spending that money. I hope that you will suggest this plan to your readers, for what one ten-year-old boy has done, ten ten-year old boys can do."

#### AMERICAN POMOLOGICAL SOCIETY.

It has been decided to hold the next meeting of the American Pomological Society in this city on the 17th, 18th, and 19th of September next, at the same time that the Fair of the Western New York Agricultural Society is held, and the exhibition of fruits, a national one, is to be held on the Agricultural Society's grounds. A great meeting of Fruit Growers and friends of American Pomology is expected, and eight or ten distinguished gentlement are engaged to furnish papers. The Western New York Horticultural Society, that always does its work well, will see that this meeting will be a success.

#### PUBLICATIONS RECEIVED.

The School Garden. By Prof. E. Schwab, Vienna. Translated by Mrs. Horace Mann. New York: M. L. Holbrook & Co. Pp. 92; 50 cents by mail, prepaid. Such is the title of a small book just published. It is a translation from the German by Mrs. HORACE MANN. The author is Prof. ERASMUS SCHWAB, Director of the Military College of Vienna. We wish it could be in the hands of all interested in the education of children and youth. In France, we are told, there are already thousands of schools with gardens attached to them, under the care of a properly qualified teacher. In Vienna, where Dr. Schwab started the movement, the authorities appropriated land and money rather reluctantly for the experiment, and three years later willingly and enthusiasticly doubled the land in order that all the children of the city might come under its cheering, refining, ennobling influences. In Sweden every school has its garden, and the unsightly school-houses and yards of America would be looked upon there as a disgrace. In Cambridge, Mass., the experiment has also been tried, and Mrs. MANN writes that it made the children as happy as they could be, and some of the boys even laid down on the grass lawn they had made and actually hugged and kissed it. Dr. NORTHROP, one of the living educators of Connecticut, and many others are advocating tree-planting by the children of the schools, and thus practically bringing them into contact with nature and work. Dr. SEGUIN, one of the foremost of our medical educators, is advocating school gardens with great earnestness.





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